

distro

engadget

021012 #27

BEYOND
THE REVOLUTION
EGYPTIANS AND THEIR
GADGETS, POST-MUBARAK

**SONY ALPHA
NEX-7**

DROID RAZR MAXX

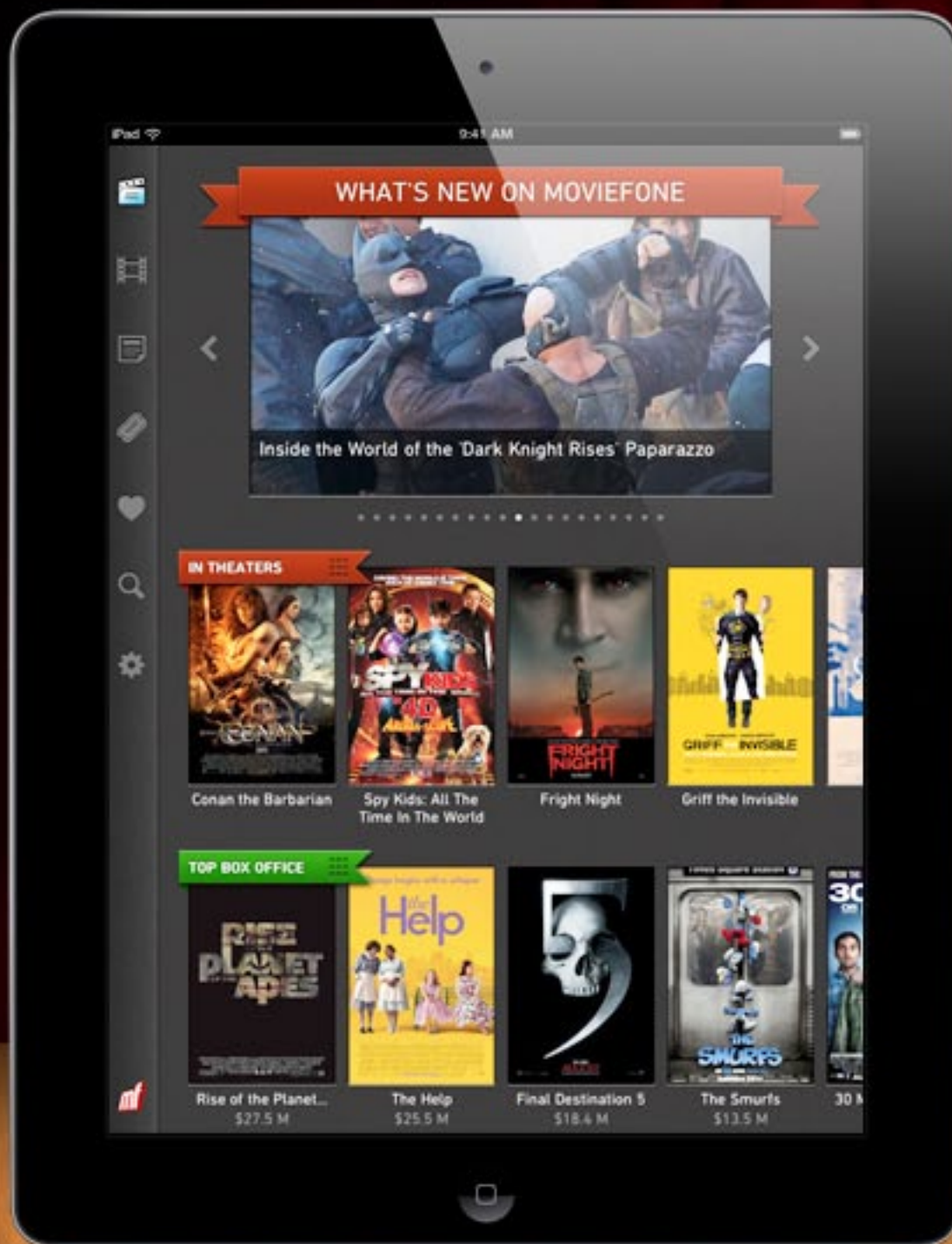
**SAMSUNG
GALAXY TAB 7.7**

LG SPECTRUM

**+ MARK
SHUTTLEWORTH**

ADVERTISEMENT

moviefone



Now Showing On iPad

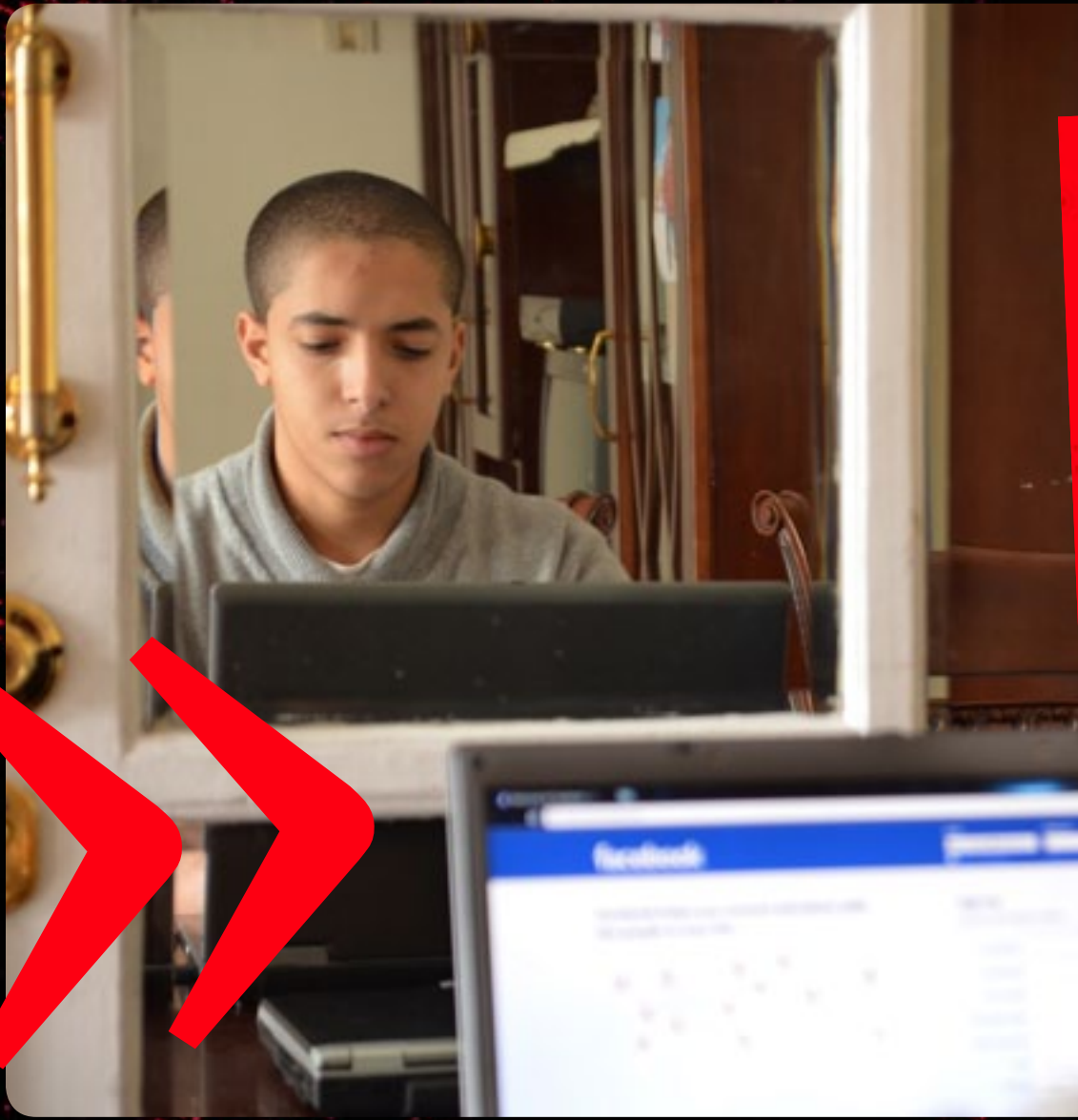
The best way to find showtimes, watch trailers, see exclusive clips and more.

Free Download 



Available on the
App Store

DISTRO Issue #27



“When the government shut everything down, people were panicking, so now they’ve realized these things are important.”

» Enter

EDITOR'S LETTER

Android Gets Polished and Nokia Goes Pale

By Tim Stevens

SNAP ANALYSIS

Awaiting a Rouge Rivalry

THE WEEKLY STAT

It's a Smartphone's World

By Daniel Cooper

SWITCHED ON

The Fit and the Pendulum

By Ross Rubin

RECOMMENDED READING

Existential Gaming, the Facebook Way and More

By Tim Stevens & Donald Melanson

» Features

REVIEW

LG Spectrum

By Brian Heater

REVIEW

Motorola Droid RAZR Maxx

By Brad Molen

REVIEW

Sony Alpha NEX-7

By Zach Honig

FEATURE

» Beyond the Revolution: Egyptians and Their Gadgets, Post-Mubarak

By Sharif Sakr

REVIEW

Samsung Galaxy Tab 7.7

By Dana Wollman

» ESC

IN REAL LIFE

Voltaic Spark, LG Optimus One and the Galaxy Nexus

By Engadget Staff

Q&A

Mark Shuttleworth of the Ubuntu Project

LAST WORD

Arrested Reunion

By Box Brown

*Cover Illustration:
Edel Rodriguez*

Android Gets Polished and Nokia Goes Pale

Editor's Letter

As an Android user, one question has bothered me for years: why did Google call its web browser “Chrome” on the desktop but apply the rather less charming “Browser” on its phones? Sure, Android actually predates Chrome by a year, but in the ensuing three years and change, I never quite understood why Google didn’t just rename the stock browser and call it a day. Well, that day has come... sort of. ¶ Google this week unveiled Chrome for Android — in beta, naturally. The app is exclusively for Ice Cream Sandwich and does not replace the stock browser, at least not yet. In our hands-on experimentation it *felt* a bit faster than the default web renderer, but benchmarks (your SunSpiders and ACIDs of the world) actually found it to be just a tick slower than most.

Surely that’ll improve, but the more interesting bit is the desktop syncing. Sign in to your Google Account and Chrome can pick up right where you left off from your desktop, finally obviating the need for Chrome to Phone. It also obviates the need for a mobile flavor of Flash — as of now the browser doesn’t support it.

On the Windows Phone side, Nokia went pale, announcing a



white version of the Lumia 800, which we promptly grabbed to sample for ourselves. We were left wondering how far behind an albino Lumia 900 would be and it didn’t take long to get an answer — the existence of that phone was confirmed the very

next day. It’s suggested we’ll see both colors at launch, so early adopters now have some decisions to make.

Shifting to a different hue, Verizon and Redbox announced a partnership that would get the crimson cube’s content streaming on the ‘net. Details at this point are scarce, but some sort of subscription plan is said to allow for the rental of physical media in addition to streaming, while support for multiple devices is confirmed. Just what devices those are, and whether they’ll exclusively be on Verizon’s network, remains to be seen.

Redbox followed that up by acquiring NCR’s entertainment division, which operates the Blockbuster Express kiosks. This gives it far more boxes in far more places than it had before, but that’s still a far cry from the number of mailboxes Netflix can service.

Nikon deployed a new supersoldier into the megapixel wars, the 36.3-megapixel

“... With three dozen megapixels on tap Nikon isn't content with leaving off that last 0.3.”

D800. Yes, even with three dozen megapixels on tap Nikon isn't content with leaving off that last 0.3. It doesn't offer the low-light performance of the also just-unveiled D4, but neither will it weigh down your camera bag quite so heavily, nor your budget. It should cost just about \$3,000 when unveiled — about half that of the D4 wunderkind.

Sony, perhaps slightly motivated by the rather tarnished reputation its PlayStation Network now carries, has decided to rebrand the service to Sony Entertainment Network. What once was PSN is now SEN, which doesn't quite have the same ring to it, but does at least open the door to a single sign-on service that will extend to televisions, Blu-ray players and whatever else Sony can find a way for you to type a password into.

In rather more intriguing gaming news, Seamus Blackley, co-creator of the original Xbox at Microsoft, has pulled together a “dream team” of 11 veterans from Atari to create simple but addictive mobile games in what he's calling “the new arcade.” “99 cents on the iPhone is the

new quarter,” Seamus told *VentureBeat*, but here's hoping the games his company produces offer a bit more value than I used to get for my 25 cents in *Missile Command*.

Sprint has begun the process of decommissioning its iDEN network. This powers the push-to-talk functionality that earned Nextel whatever following it had prior to jumping on with Sprint in 2005. Towers in New Orleans will be first to go dark, leaving subscribers there with no means of communication — other than actually calling the person they want to talk to. Or they could buy new phones that support Sprint's CDMA-based PTT service.

Finally, another service disappearing is Dashwire on Windows Mobile. Owners of WinMo 6.0 or 6.5 devices may have fond memories of this app, which automatically uploaded photos, videos, text messages and emails to the cloud. This made it easy to transition from one phone to the next back in a time when that was a very time-consuming thing to do. Unfortunately for the service, many of those Windows Mobile users

(myself included) transitioned onto Android years ago, which does a lot of this out of the box.

In this week's Distro, we're taking you to Egypt for a look at the state of the gadgets there one year after the landmark protests succeeded in forcing President Hosni Mubarak to resign. We also have a review of the battery-packed Droid RAZR Maxx, the slightly less extreme LG Spectrum, Sony's amazing and mirror-free Alpha NEX-7 camera and the imported version of a tablet that I personally have the hots for, the Samsung Galaxy Tab 7.7. All that plus a new Recommended Reading featuring one of my favorite books, Q&A with Ubuntu's Mark Shuttleworth and a fresh Switched On, in which Ross Rubin explores the rapidly burgeoning world of phablets. Whether you're reading this on a phone, a tablet, or something in between I hope you enjoy. 



TIM STEVENS
EDITOR-IN-CHIEF,
ENGADGET

AWAITING A ROUGE RIVALRY

On February 6th, Big Red and Redbox announced a joint venture that could give Netflix a run for its money. The crimson collaboration promised “the best of both worlds”: physical DVD and Blu-ray rentals and an online streaming and download service. It’s an obvious contender for the standard-bearer of dual media delivery, Netflix, and should arrive before year’s end. Netflix, for its part, recently emerged from a rocky 2011 that saw the launch of the ill-fated Qwikster spin-off and subsequent fluctuations in subscriber numbers.

In the eminent showdown between Netflix and the Verizon / Redbox joint venture, who will win and why?

Selected Reactions

For me, they’re not at odds. Netflix is torpedoing their mail service, so Redbox fills that spot. I use both.

@nickmendez, via Twitter

My concern is that having two major, subscription-based streaming content providers might only serve to create a licensing bidding war with producers, leaving consumers with higher prices but no appreciable increase in content. +Steve Manes, via Google+

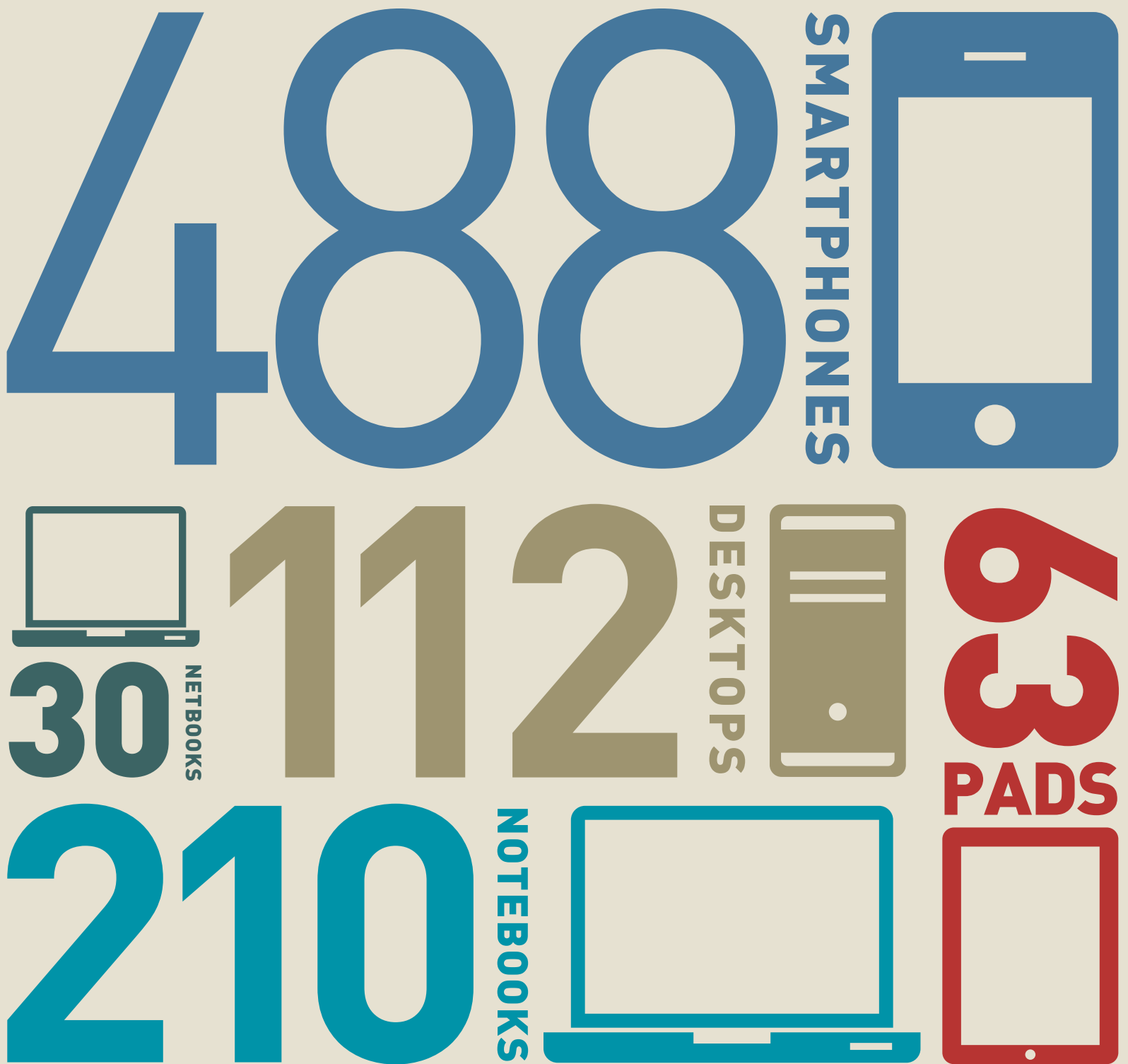
In my country is irrelevant. Verizon is just an annoying label on a stolen BB, Redbox a pizza delivery and Netflix a dream. @jueGAME, via Twitter

Very plausible, netflix customer’s are sick of diminishing content... ready to try something new. @Zbexx, via Twitter

Why can’t both win? I personally go with Netflix because there is no Redbox in Canada (as far as I know), but why should only 1 company come out on top. The competition will cause them both to step up their game....consumers will benefit.

+Jerome F, via Google+

Based on Canalys 2011 Worldwide Device Shipments



ALL NUMBERS REPRESENTED IN MILLIONS

The Weekly Stat

It's a Smartphone's World

2011 will be known as the year smartphones supplanted computers, at least according to the bundle of spreadsheets that just arrived from Canalys Research. Vendors reportedly shipped 488 million of the devices, compared to 414.6 million "PCs," which erroneously includes tablets of all shapes and sizes. However, framing the research as "PCs versus smartphones" may not be the wisest, given the fragmentation and hybridization prevalent in the market today. Drilling down into those numbers, we learn that 63.2 million tablets were pushed out last year, cannibalizing netbook shipments (which dropped 34.5 percent in a year), but desktop and laptop movements remained relatively stable. — *Daniel Cooper*

THE FIT AND THE PENDULUM

Switched On



BY ROSS RUBIN

Ross Rubin (@rossrubin) is executive director and principal analyst of the NPD Connected Intelligence service at The NPD Group. Views expressed in *Switched On* are his own.

In the pre-smartphone era, the industry focused on making cell phones smaller. In the 2001 movie *Zoolander*, the title character played by Ben Stiller uses a humorously diminutive flip phone closer to the size of a Bluetooth headset than the StarTAC it parodies. But if the movie were being made today (IMDB lists a sequel slated for 2014), the fictional male model might hold up an iPad 2 or Toshiba Excite to his head because, particularly since 2010, phones have been growing larger to accommodate their growing displays. ¶ At their launch, phones such as the 4.3 inch HTC HD2 and EVO 4G seemed wall-like. But those dimensions are workaday today. Carriers have since brought on the 4.5 inch Samsung Infuse, the 4.65 inch Galaxy Nexus, and the 4.7 inch HTC Titan. These too, will soon be domestically dwarfed by the 5.3 inch Galaxy Note, unfortunately referred to by some as a “phablet,” as it traverses oceans to dock in the AT&T portfolio. The ample Android smartphone might be dismissed as a fringe device like the 5-inch Dell Streak that rushed into history, but Samsung felt that its potential is great enough to spend the sums required to promote it with a Super Bowl commercial. ¶ Of course, there are phones with smaller displays available, but their downsizing is often driven by cost-reduction, which entails slower processors and less memory.


One of the few phones that made a statement against all this screen supersizing was the HP Veer, the last phone released in the U.S. by the company. HP executives positioned it as an ideal companion for consumers who were migrating more to tablets like its own short-lived TouchPad; this was a 21st-century update of the old notion that phones would stay dumb while we used tethered PDAs.

If a phone's display can be too rich, can the phone itself be too thin?

While the Veer sold as respectably as any webOS handset, it certainly was not enough to stem the titan tide, much less HP's fortunes.

If a phone's display can be too rich, can the phone itself be too thin? There's been at least one phone that implies they can, and from a company that recently recaptured some of its reputation for handset slimming. Just a few months ago, Motorola turned heads with the 7.1mm Droid RAZR, which featured a particularly impressive profile for an LTE device. But despite adding a feature called Smart Controls to facilitate more seamless battery extension, it recently upped the device's thickness to just under 9mm with the Droid RAZR Maxx that boasts a higher-capacity battery. Once,

of course, those wanting to eke more juice out of their phone could simply buy an extended battery, but in this age of the integrated battery, greater stamina can justify a whole new model.

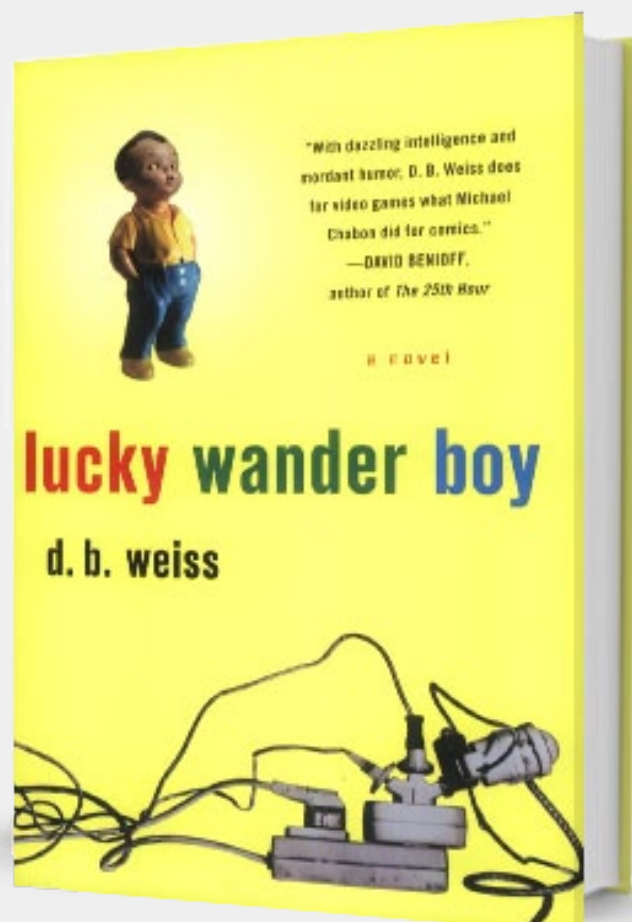
The Droid RAZR Maxx is hardly a brick; its bigger battery simply makes its back almost flush with the bulge the original had in the area housing its camera. But with less than two millimeters separating the girth of the Droid RAZR from the RAZR Maxx, the former, in retrospect, seems more like an engineering statement. As LTE chips become more power-efficient, there will be less need to compromise between preservation and profile. Tall and thin should continue to set the agenda for some time to come; Derek Zoolander's friends would approve. 

Lucky Wander Boy



by D.B. Weiss
Plume

If you're a fan of incredibly obscure videogames you'll know about *Penn & Teller's Smoke and Mirrors*, an unreleased Sega CD title that contained a now (mildly) infamous mini-game called *Desert Bus*. In it, you drive at 45 MPH from Tucson to Las Vegas along a completely straight and entirely deserted road. The journey takes eight hours and, if you succeed, you earn one whole point and the opportunity to drive back again. It's a pointless exercise and *Lucky Wander Boy* is a fictional



tale of a similarly objective-free game, yet one that has some rather mystical properties unveiled after lengthy playing sessions. The game's creator is also mysterious and this book follows a man who puts his life on hold as he goes in search of meaning for it all — even stopping by the patch of sand where copies of the Atari 2600 legend *E.T. the Extra-Terrestrial* were buried. It is a particularly nerdy tale and yet a particularly well told one. It doesn't string you along with technobabble in a thin attempt at keeping you interested; the tech and games are strong characters and part of a story that is genuinely compelling.

der Boy is a fictional tale of a similarly objective-free game, yet one that has some rather mystical properties unveiled after lengthy playing sessions. The game's creator is also mysterious and this book follows a man who puts his life on hold as he goes in search of meaning for it all — even stopping by the patch of sand where copies of the Atari 2600 legend

AROUND THE WEB

Earth Station: The Afterlife of Technology at the End of the World

by Alexis Madrigal
The Atlantic



Alexis Madrigal provides a compelling history of the largely forgotten Jamesburg Earth Station, which for 30 years was at the forefront of satellite communications (including the transmission of the Apollo 11 moon landing), and has now been put up for sale.

Does Facebook Really Embody 'The Hacker Way?'

by Jolie O'Dell
VentureBeat



Wondering what the likes of Eric S. Raymond, Rasmus Lerdorf and Richard Stallman think of Mark Zuckerberg's embrace of the Hacker Way in his letter to shareholders for the Facebook IPO filing? Jolie O'Dell got their reactions in this piece for *VentureBeat*.

The Death of the Cyberflâneur by Evgeny Morozov

The New York Times



The French term *flâneur* saw an updating to *cyberflâneur* in the 1990s, referring to someone who casually surfs the web in search of inspiration and new experiences as *flâneurs* strolled 19th century Paris streets. In this essay, Morozov argues that the new internet of Facebook and "frictionless sharing" is quickly making such individuals a thing of the past.



REVIEW

LG Spectrum

The LG Spectrum offers LTE, fine performance and a great screen, but the short battery life makes it a tough sell.

BY BRIAN HEATER

Let's just get this out of the way, shall we? If the LG Spectrum looks familiar, you're not imagining things. It may have been a highlight at the company's CES press event last month, but the handset bears more than a passing resemblance to its older, more excitingly named sibling, the LG Nitro HD

— and, by extension, the globe-trotting Optimus LTE. Beneath their 4.5-inch IPS displays, you'll find virtually identical guts, including a 1.5GHz dual-core processor, 1,830mAh battery and 4GB of internal storage, coupled with a 16GB microSD. There are some important distinctions here, of course



— namely, changes to the phone’s shell and, of course, a shift from AT&T to Verizon. So, how does the world-weary Optimus fare from its jump to Big Red? Read on to find out.

Hardware

Like the Nitro before it, the centerpiece here is that lovely 4.5-inch IPS fingerprint magnet. The Spectrum is a smidgen more flat on the top and bottom, giving the handset a fairly classic, slab-

like appearance. Above the display sits a big Verizon logo, just to the left of the front-facing 1.3-megapixel camera. Right above that is a discreet speaker grill — far less pronounced than the Nitro’s. Along the bottom bezel, you’ll find a row of haptic touch controls, including menu, home and back. The menu button in particular is a big, silver affair, embedded beneath a coat of gloss, adding a little spice to an otherwise boring front. The handset also has

a silver band around its border, adding a little splash of color and a few millimeters to its height.

LG has sapped the Optimus and Nitro HD of what little aesthetic charm they had.

Along the left-side of the handset, you'll find a volume rocker — two of three physical buttons on the phone. In spite of the fair amount of real estate afforded by the large screen, LG opted not to go overboard on the front by adding, say, a camera key. Instead, the entire left side of the phone is barren, completely devoid of buttons or ports. There's nothing on the bottom, either, which only sports a microphone hole, along with a small slit for prying the back off the phone. Things are a fair bit more crowded along the top, however, where the headphone jack, power / lock button, secondary mic and MHL port live, the latter of which hides behind a flimsy door you'll have to scrape away with your fingernail.

The biggest aesthetic difference between the two handsets can be found on the rear of the device, where the Nitro's textured backing has been swapped out for a glossy checkerboard cover, which, like the front surface,

serves as one handy repository for fingerprint grease. Ultimately, we've got to give this round to the Nitro: the textured rear helps save the phone from potential slippage and generally looks better than the smudge-tastic Spectrum. The phone feels good in hand, but the omission of any sort of textured backing feels like a forced attempt at differentiating the Spectrum from its identical cousin. The plasticky back also lends the handset a generally cheaper feel than its contemporaries. The eight-megapixel camera module sits toward the top, with the Nitro's brushed metal accent replaced by something shinier. The metal logo has also been replaced by a less exciting painted one. Along the bottom of the back side, you'll see a 4G LTE logo, along with two slits for the speaker.

Again, the display's a marquee feature, and it's a doozy. What we have here is a Gorilla Glass-encased 16:9 IPS panel. As with the Nitro HD, the Spectrum packs an impressive 329ppi into its 1280 x 720 display. The colors really pop, even with the relatively staid scheme of the new *Sherlock Holmes* trailer, which comes pre-loaded on the device. You'll also get some great viewing angles out of the handset — though the ultra-glossy screen will undermine the visibility considerably if there happens to be a light source overhead.

All in all, LG has really sapped the Optimus / Nitro of what little aesthetic charm it had, resulting in a dull, cheap-feeling slab of a phone. Sure it's

BENCHMARK	LG SPECTRUM	LG NITRO HD	HTC REZOUND
Quadrant ¹	2,524	2,616	2,347
Linpack Single / multi ¹ (MFLOPS)	49.1 / 76.2	51.1 / 81.8	52.0 / 60.3
Vellamo ¹	1,144	1,156	N/A
NenaMark1 ¹ (fps)	55.3	56.1	53.5
NenaMark2 ¹ (fps)	35.8	37.2	35.8
Neocore ¹ (fps)	59.6	59.8	59.8
SunSpider 0.9.1 ² (ms)	2,850	2,687	2,961

¹Higher is better

²Lower is better

quite reasonably priced at \$199 (plus a two-year contract, natch), but for that kind of money you can also become the proud owner of the Droid RAZR or HTC Rezound, both of which are far more arresting.

Performance and Battery Life

Given the similarity between the two phones' internals, we're probably not going to pop off any monocles when we say the Spectrum and the Nitro HD fared comparably across our benchmarks. On an initial run, the handset notched lower scores, but a software upgrade noticeably boosted them. Even after the upgrade, the handset generally scored a bit lower than the Nitro HD, but for what it's worth, that gap was modest, at best.

These numbers also compare reasonably well against what we observed from the HTC Rezound, another \$199 offering on Verizon (it cost \$100 more

when it first launched, a few months ago). LG's phone ekes out the Beats-packing handset in most departments, including NenaMark 1, Linpack multi, Quadrant and SunSpider. The Rezound does best the Spectrum in the Linpack single and Neocore departments, while NenaMark 2 is a wash.

The phone performed decently with standard use, too, though the Qualcomm MSM8660 1.5GHz dual-core processor-powered phone did experience some hiccups, including a lag coming out of the camera program, for example. On the whole, though, the phone performs most standard tasks, such as web browsing and finding addresses via Google Maps about as well as you could hope.

Things are a bit less rosy on the endurance front. In our standard battery life test, the handset eked out around four and a half hours. In the real world, we managed to get around seven and a

TYPE	DATE	DOWNLOAD	UPLOAD	PING
📶	01/25/12 7:49PM	16.67Mbps	15.65Mbps	82ms
📶	01/25/12 7:49PM	17.44Mbps	17.64Mbps	93ms
📶	01/25/12 7:49PM	11.98Mbps	18.79Mbps	80ms
📶	01/25/12 7:49PM	11.85Mbps	17.84Mbps	69ms
📶	01/25/12 7:48PM	14.54Mbps	18.49Mbps	71ms
📶	01/25/12 7:48PM	16.82Mbps	11.67Mbps	69ms
📶	01/25/12 7:48PM	17.72Mbps	18.68Mbps	98ms
📶	01/25/12 7:47PM	17.29Mbps	15.89Mbps	84ms
📶	01/25/12	14.02Mbps	17.35Mbps	50ms

TYPE	DATE	DOWNLOAD	UPLOAD	PING
📶	01/26/12 8:37PM	20.38Mbps	7.88Mbps	89ms
📶	01/26/12 8:37PM	19.81Mbps	10.53Mbps	71ms
📶	01/26/12 8:37PM	18.51Mbps	9.76Mbps	80ms
📶	01/26/12 8:37PM	15.45Mbps	9.42Mbps	76ms
📶	01/26/12 8:36PM	28.26Mbps	9.18Mbps	79ms
📶	01/26/12 8:36PM	18.43Mbps	9.27Mbps	79ms
📶	01/26/12 8:36PM	25.86Mbps	9.92Mbps	81ms
📶	01/26/12 8:36PM	30.32Mbps	9.67Mbps	78ms
📶	01/26/12 8:35PM	29.30Mbps	12.41Mbps	84ms

half hours of use — enough to get you through the better part of a day. If you need more stamina, you’ll want to scroll through the settings and disable LTE — unless, of course, you’re near an outlet. It’s either battery life or speed here. You can’t have it both ways.

Network Speeds

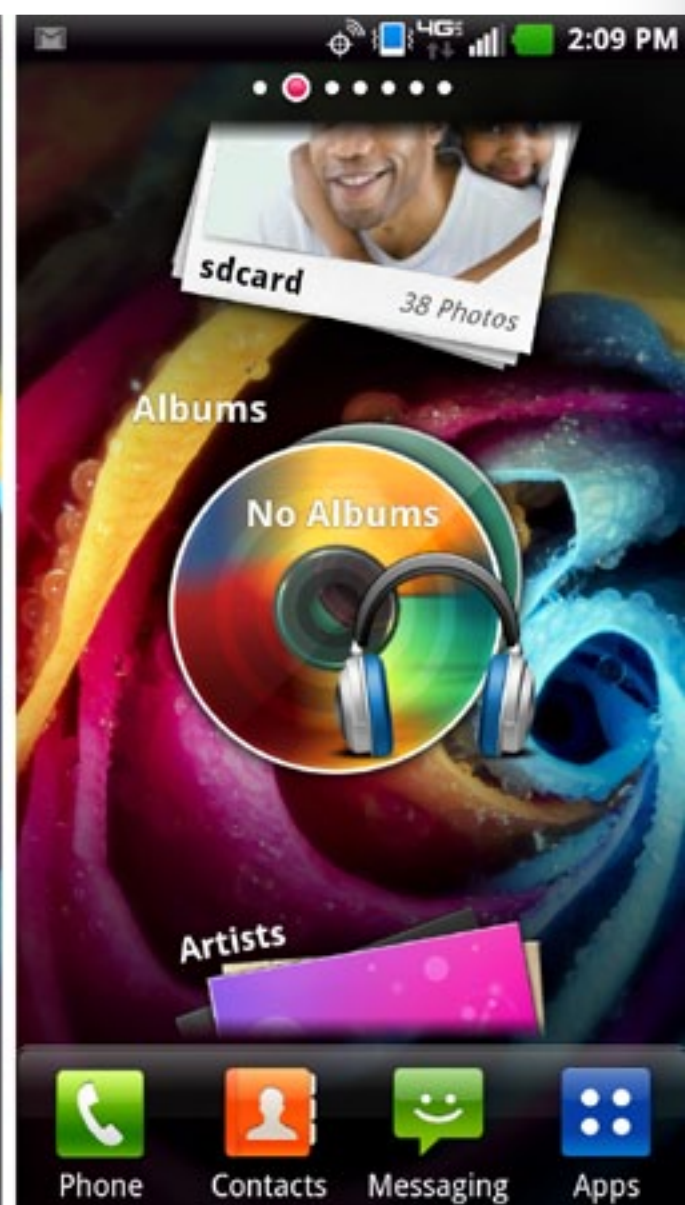
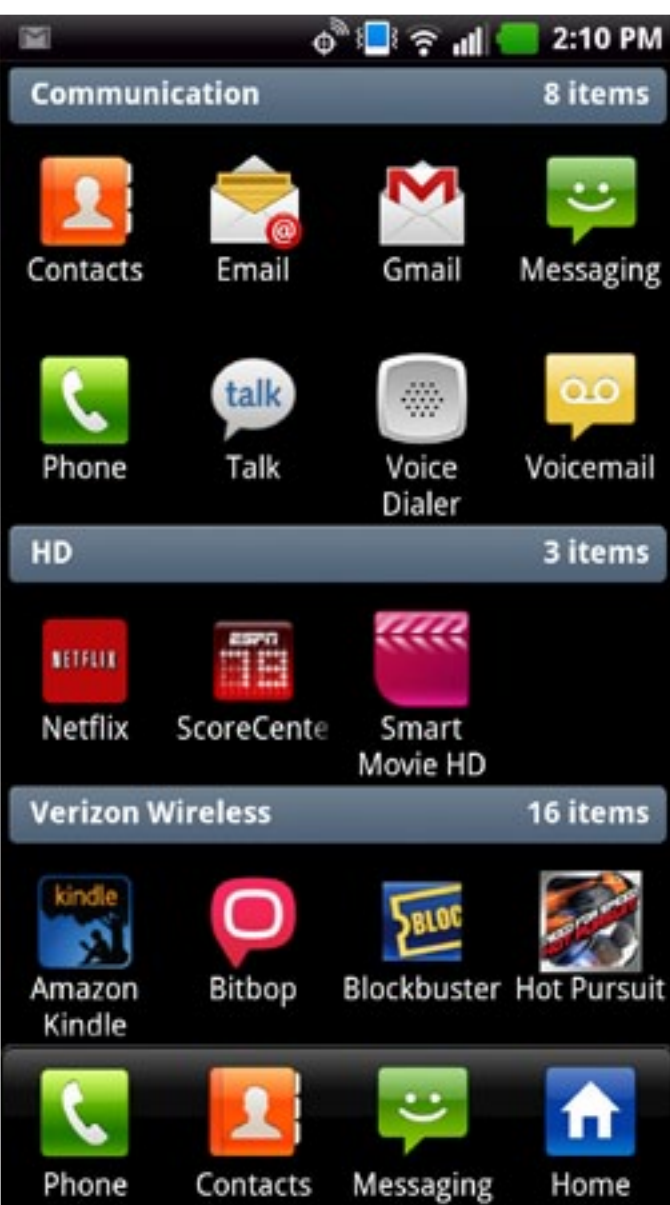
The Spectrum gets some respectable — though not extraordinary — data speeds, courtesy of Verizon’s LTE network, the one whose logo is so proudly emblazoned across the device’s back. Unsurprisingly, data rates around New York City varied a good deal,

based on location and time of day, with max download speeds of 30.32 Mbps and uploads of 18.68 Mbps. Mid-day in midtown Manhattan, things slowed to a crawl, however. All told, our average results came to 14 Mbps down and 11.2 Mbps up — not bad, but far from exemplary.

Camera

The Spectrum’s flash-packing eight-megapixel camera performed admirably, even in the relatively dim, overcast days we’ve been experiencing here on the east coast, capturing fine detail and handling contrast well. Naturally,





the quality degraded in darker settings, and when the handset's zooming capabilities were pushed to their limits.

The camera software is the same as on the Nitro HD, which is to say, it allows you to shuffle between portrait, landscape, sports, sunset and night modes. If you're feeling fancy, you can fiddle with the white balance, ISO and color settings, or snap a panorama shot. You can also enable location-tagging if you're so inclined.

The phone's 1080p video capture performed fairly well, recording the chaos of a busy city scene with a fair amount of detail. It also did an admirable job pulling in the cacophonous sounds from all angles. Unlike in still mode, though,

autofocus is conspicuously absent during the recording process.

Software

Good news for those who fear change: we're still looking at Gingerbread here. LG has promised an upgrade to Ice Cream Sandwich "soon," so you've got something to look forward to on that front, provided you can stay patient. In the meantime, you're gonna be dealing with a *slightly* dated mobile OS — albeit, one masked by LG's stock skin. As with the Nitro HD, there's not a whole lot of fancy 3D animation going on in the menus here, which helps things move along quite snappily. In fact, the default layouts are quite simi-

lar on the two phones, with big weather and and social networking widgets popping up, as you scroll from screen to screen.

The Spectrum swaps AT&T's carrier-centric page for one that features quick links to the phone's multimedia offerings. The handset ships with 16 apps that fall under the Verizon heading, including VZ Navigator, V Cast Media Manager, Verizon Video and some third-party ones like Rhapsody and Blockbuster. Unlike the Nitro, there's no active Carrier IQ to tangle with here.

BOTTOMLINE

LG
Spectrum

\$199

PROS

- Stunning display
- Fast LTE speeds
- Good image quality


CONS

- Short battery life
- Boring design
- No ICS yet

» The LG Spectrum offers LTE, fine performance and a great screen, but the short battery life makes it a tough sell.

Tapping and holding a finger down on the desktop launches a grid that lets you adjust widgets, shortcuts, folders and wallpaper. Zoom in from there, and you can swap the order of home screens, or just delete them altogether, if you're sick of all of those social networking widgets.

Wrap-Up

When the Optimus LTE made the jump to Verizon, it shed a lot of aesthetic charm in the process. What it lacks in looks, however, the phone makes up for somewhat with its stunning 4.5-inch display. The handset also sports a capable shooter and good transfer speeds, in part thanks to Verizon's 4G network. LTE is no longer a huge novelty, though — and if you've resigned yourself to spending \$199 on a phone with a two-year contract, you could arguably do better with the Droid RAZR or HTC Rezound. Battery life continues to be a concern for LTE handsets of all stripes, and the Spectrum certainly doesn't do anything to change that. All of this adds up to a fairly uninspiring choice for Verizon customers, who currently have no shortage of quality handsets to choose from. 

Myriam Joire contributed to this report.

Brian's work has appeared in Spin, The Onion, Entertainment Weekly, The New York Press, PCMag, Laptop, and various other publications.



REVIEW

Motorola Droid RAZR Maxx

If you're a power user, you'll have no choice but to go with the RAZR Maxx's superb battery.

BY BRAD MOLEN

Most of today's smartphones, especially those of the LTE-enabled persuasion, have earned a bad rap for exceptionally bad battery life, with large displays and hungry radios that suck the juice out faster than a three-yea old can down a CapriSun. The race

to construct the thinnest phones on the market doesn't help much either, since whittling down handsets results in less space for generously sized battery packs. The Motorola Droid RAZR is currently the slimmest phone this side of the Pacific, offering a thickness



of 7.1mm at its thinnest end — the title likely won't hold for long as new phones like the Huawei Ascend P1 S aim to knock the RAZR off its throne. But at what point do we stand up and insist on adding a little extra heft for the sake of having a bigger battery?

Enter the Motorola Droid RAZR Maxx. A mere two months after its predecessor was released on Verizon, this new contender came around to challenge the battery life of every single next-gen phone we've ever used. Its back end has been filled out somewhat to make room for a bigger battery, but at 8.99mm, it's still slimmer than a huge number

of competing handsets on the market today. So what makes the Maxx different from the RAZR? Is it worth paying \$300 with a two-year commitment — a \$100 premium over its original? Read on to find out.

The Maxx cuts a skinnier profile than the iPhone 4S and the Galaxy Nexus on Verizon.

Hardware and Design

The Maxx looks like original Droid RAZR would if it made a trip through a maze of funhouse mirrors. Realistically, the two are complete twinnings in every way but one: the Maxx measures 8.99mm at its thinnest point, while the RAZR's much slimmer at 7.1mm thick. In reality, a difference of 1.9mm doesn't seem to be that much — and we agree. But in the mobile world, it's the thinnest devices that reign supreme and ultimately earn ultimate bragging rights.

The Maxx isn't looking to win that title, but, still, it shouldn't be considered bulky by any means. After all, at its thinnest, it cuts a skinnier profile than the 9.3mm-thick iPhone 4S and the 9.47mm Galaxy Nexus on Verizon. Granted, the Maxx still sports the same

10.6mm-thick hump as you'll find on the original RAZR's back cover, though this time around, the slope running up from its thinner end is less pronounced. And frankly, we don't mind the dimensions one bit. We understand that thin is in, but the heft makes for a much more comfortable grip.

The Maxx is also a smidge heavier than its 4.48-ounce (127g) predecessor, tipping the scales at 5.11 ounces (145g). Again, this is definitely manageable and still bests the Galaxy Nexus. This begs the question, though: why does it matter that this phone is slimmer and lighter than Sammy's flagship ICS device? Because the entire reason the Maxx exists is to accommodate that mammoth 3,300mAh battery built inside to deliver superb battery life. We'll do a deep dive into the performance later, but the fact that the thicker and heavier Nexus uses a smaller power pack goes to show that there is no more excuse for poor performance in this category. If Motorola can push out stellar results in such a thin profile, why can't HTC or Samsung?

Let's not overlook one key factor here, which is the lack of a user-removable battery. Motorola certainly had to make a few concessions in order to cram more stuff into less space, and a battery cover missed the cut. With such a lengthy talk time, most people won't blink an eye at this, and we feel the same way. We had plenty of concern with the first RAZR, since we knew enough people would find a genuine need for an extended



battery, but being stuck with such a large juicepack on the Maxx won't be *quite* as frustrating for heavy users.

Aside from the larger battery and plumper profile, the Maxx has the same specs and design as the original RAZR. Leave that out of the equation and you'd be hard-pressed to tell the difference between the two of them. The ports are all in the same place, the lackluster PenTile qHD display is left unimproved, the firmware and cameras remain unchanged and the hardware itself is still fashioned out of tough materials like Kevlar and Gorilla Glass.

It's a slap in the face to power users that bought the RAZR but would've waited for the Maxx had they known it was coming.

This feels like a slap in the face to power users that purchased the original Droid RAZR during the holidays but would've waited for the Maxx had they known it was coming in two months. The situation isn't dissimilar to the ruckus AT&T caused by announcing three versions of the Samsung Galaxy S II — the GSII, Skyrocket and Skyrocket HD — within a span of four months. On one hand, we can definitely relate to the frustration. On the other, such rapid turnover has turned into standard practice in the US, a cautionary tale to keep in mind when buying a phone. Will this handset serve your needs, regardless of what may come to market over the next 18 to 24 months?

We suppose it could have been worse for heavy-hitting RAZR owners if Moto and Verizon made improvements to other components as well, but that's exactly what the two companies

should've done. More specifically, we were disappointed that the qHD display was left untouched, and would've enjoyed seeing a 720p HD panel get tossed in to help the Maxx match wits against the Galaxy Nexus.

Battery Life

Two words: holy smokes. We took the phone off the charger at 8:30 AM, began our standard video rundown test that consists of an endless video loop while connected to 3G, walked away and waited. And waited. And continued waiting until 1 AM the following morning. That's right — the Maxx lasted 16.5 hours playing the same video over and over before giving up the ghost. Running the same test on the original Droid RAZR yielded nine hours of battery life, which is respectable, though nowhere near this impressive. We charged up the Maxx again, used it moderately for a full day and a half and the phone was still at 40 percent. The next morning we awoke to find the Maxx was still sitting pretty at 20 percent. Had we left Smart Actions turned on, it likely would have saved us even more juice. In other words, it lasted a solid two days with moderate use before it cried out for another charge.

We expected the Droid RAZR Maxx's 3,300mAh battery to last us a long time, and we were aware that the talk time for the phone is rated at 21 hours. But interestingly enough, despite the fact that the battery life didn't last as long as advertised, we still found ourselves in



awe, wondering where this phone had been our whole lives.

Camera

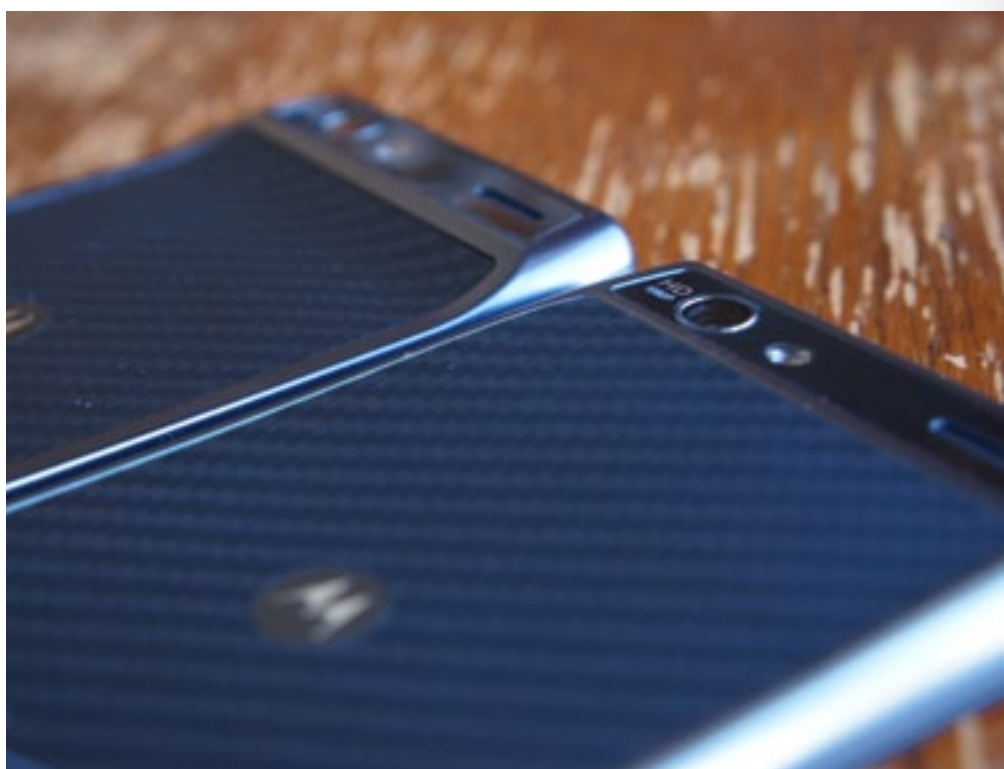
As with the Droid RAZR, the Maxx sports an eight-megapixel rear shooter and a 1.3-megapixel front-facing camera. As mentioned before, the sensors are identical to the previous phone, and as such, don't expect to see many different results here. Colors are still muted in direct sunlight, it struggles in low-light situations and indoor images are once again a bit noisy. We were pleased to see only a limited amount of shutter lag, thanks to the phone's continuous autofocus feature. Panorama shots were hit-or-miss, with half of our images not even merging together

without looking blurry or disjointed.

As ever, the 1080p video capture is above average. Granted, we still experienced a little bit of compression, but everything was crisp and the movies we made were perfectly fluid. The camcorder is set to 720p by default, so you'll need to go in and manually switch it up the first time. However, when we used the lower resolution we were still pleased with the results.

Software

We won't dive into a whole lot of detail here, because frankly there isn't much to give this time around that wouldn't be directly copying our review of the original Droid RAZR. Why? Because the two phones run virtually the same



ROM, build and skin. Using the RAZR and the Maxx side-by-side, we came to an interesting realization: nothing about its firmware is different from its mentor. There is no new firmware build, no nifty tricks added in for the heck of it and no improved specs. When we mentioned earlier that the Maxx really is the OG RAZR with an extended battery built inside, we were speaking quite literally.


Wrap-Up

The Droid RAZR Maxx may deliver a lifetime of mammoth proportions, but we can't help but have mixed feelings. Why? As is too often the case (the Samsung Skyrocket series on AT&T comes to mind), Motorola and Verizon are hard at work pushing too many RAZR devices at once, and early adopters are left as the victims. We're sure there were a few people that purchased

How many of us would love to have a device that's reasonably svelte and still offers superb battery life?

the original phone because they were bedazzled by its incredibly thin profile, but how many owners would much rather have a device that's still *very* reasonably svelte and offers astronomically superb battery life?

Power users who need to have the longest lifetime possible will have no choice but to pick it — a notion that's just cause for disappointment. At its worst, it's an original RAZR with a \$100 extended battery pack attached. At its best, however, the Maxx is proof to every phone manufacturer that it really

is possible to make a slender (and absolutely stunning) device that can actually survive more than a full day's worth of heavy use. So what does the Maxx really offer to the rest of the mobile community? A sense of optimism. 

Edgar Alvarez contributed to this review.

Brad is a mobile editor at Engadget, an outdoorsy guy, and a lover of eccentric New Wave and electro. Singer and beatboxer.

BOTTOMLINE

Motorola Droid RAZR Maxx

\$300

PROS

- Spectacular battery life
- Thinner than most comparable smartphones
- Performs as well as original Droid RAZR

CONS

- Slap in the face to RAZR early adopters
- No improvements in the PenTile qHD display
- Offered at \$100 premium over RAZR

» If you're a power user, you'll have no choice but to go with the RAZR Maxx's superb battery.



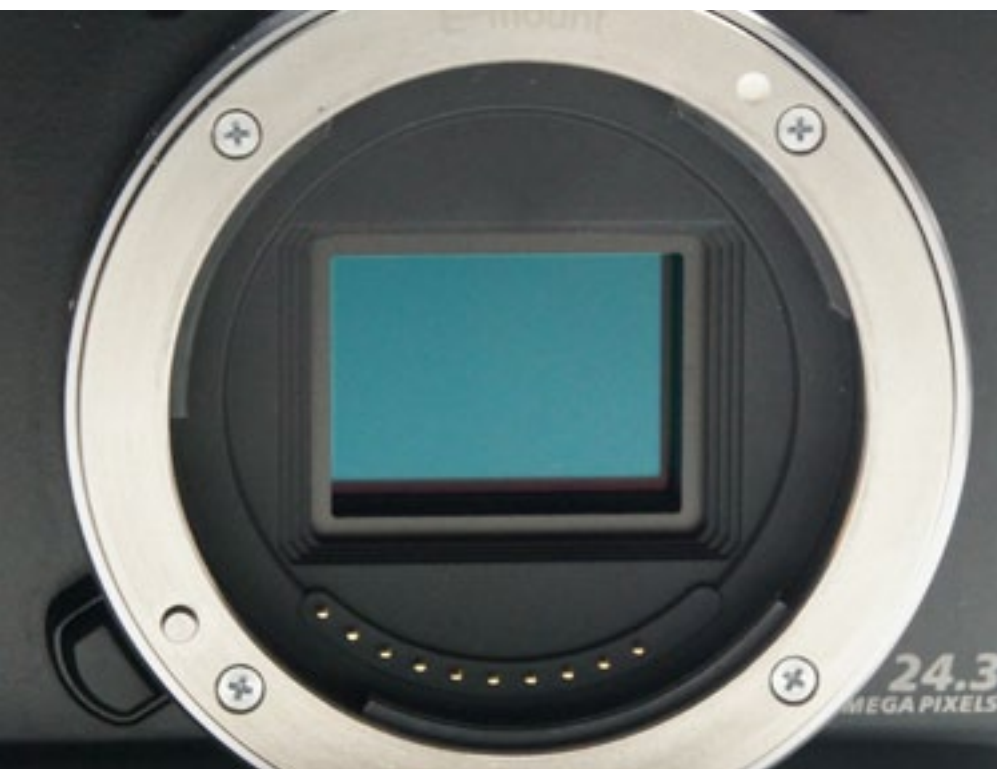
Sony Alpha Nex-7 Mirrorless Camera

Sony's NEX-7 is the company's best mirrorless camera yet, offering true DSLR image quality in a compact body.

BY ZACH HONIG

Remember the NEX-7? Ever since a days-long shooting session back in September, Sony's prized mirrorless cam has eluded us — and the rest of the world. As you may recall, the flagship Alpha ILC was hit by the Thailand floods, resulting in delay after delay, eventually missing the holiday shopping season entirely before resurfacing late last month. Another week later and our

beloved Sony Alpha NEX-7 has finally arrived, ready to take on the streets of New York City. So what exactly is the NEX-7, and why does it cost as much as a mid-range DSLR? First off, the 24.3-megapixel APS-C ILC captures, well, 24.3-megapixel images, offering the highest resolution of any mirrorless model on the market. Its APS-C sensor is identical to the one found in Sony's



A77 DSLR, measuring larger than Micro Four Thirds and on par with most full-size digital SLRs.

If having the ability to capture mural-size images ranks fairly low on your digicam wish list, you may take comfort in some of the NEX-7's other features, such as its gorgeous and durable magnesium alloy body, built-in XGA OLED electronic viewfinder, 3-inch, 921k-dot articulating LCD and unique tri-navi

control interface that enables direct access to key settings adjustments, including both aperture and shutter speed in manual mode. There's also 1080/60p HD movie capture with full manual control and microphone input support, a 10 frames-per-second continuous shooting mode (with exposure and focus locked) and a BIONZ image processor that's capable of delivering low-noise images all the way through

ISO 16,000. These features combine to make the NEX-7 one of the most powerful mirrorless cameras to date, but are they enough to justify the \$1,200 body-only price tag?

Hardware

From the moment you see the NEX-7's black packaging, it's clear that Sony wanted to provide an upscale experience from start to finish. The box is larger than that of the NEX-C3, with felt-topped dividers spanning multiple layers. Each component from the battery to the USB cable has its own compartment, and a large, box-width lens cloth rests on top. The basic \$1,350 NEX-7 kit includes the same 18-55mm f/3.5-5.6 lens that ships with every NEX kit, though this iteration features a matte black finish, compared to the silver lens available through other channels. There's also a premium 24mm f/1.8 Zeiss lens (\$1,000), which you may want to consider adding to your collection as well — if your pockets are deep enough.

While many of the NEX-7's overarching design elements should seem familiar to NEX camera owners, the body is noticeably larger than the NEX-C3 and NEX-5N — a design choice intended to accommodate the built-in XGA OLED electronic viewfinder, tri-navi interface and full-size hot shoe. NEX critics may actually prefer the larger size of Sony's new flagship, since some E-Mount lenses look awkwardly large when mounted on this camera's smaller siblings. Still, it's by no means a big compromise — the

mirrorless cam is petite and lightweight compared to full-size DSLRs. It's also quite durable, with a magnesium alloy frame and solid construction (we spent a few hours shooting at a dusty track during our initial test period, and while the housing contracted a thin layer of dirt, the sensor and internal lens mount remained clean).

Naturally, the camera itself feels like a top-shelf imaging device, with a consistent, elegant design and solid controls. On the top of the NEX-7 you'll find a full-size hot shoe with a slide-in cover that allows for a flush appearance when not in use. There's also a built-in pop-up flash with an arm that's long enough to project light beyond the end of the sizable 24mm lens with the included lens cover removed — leaving the cover on will result in an uneven vignette effect, though if the scene is dark enough to require the flash, you probably won't need to worry about lens flare. When retracted, the strobe lies flush, so you may not even notice it at first glance. To the right, there's a pair of control wheels that can be used to adjust a variety of settings, depending on mode, followed by a power slider, shutter release and shift button above the grip.

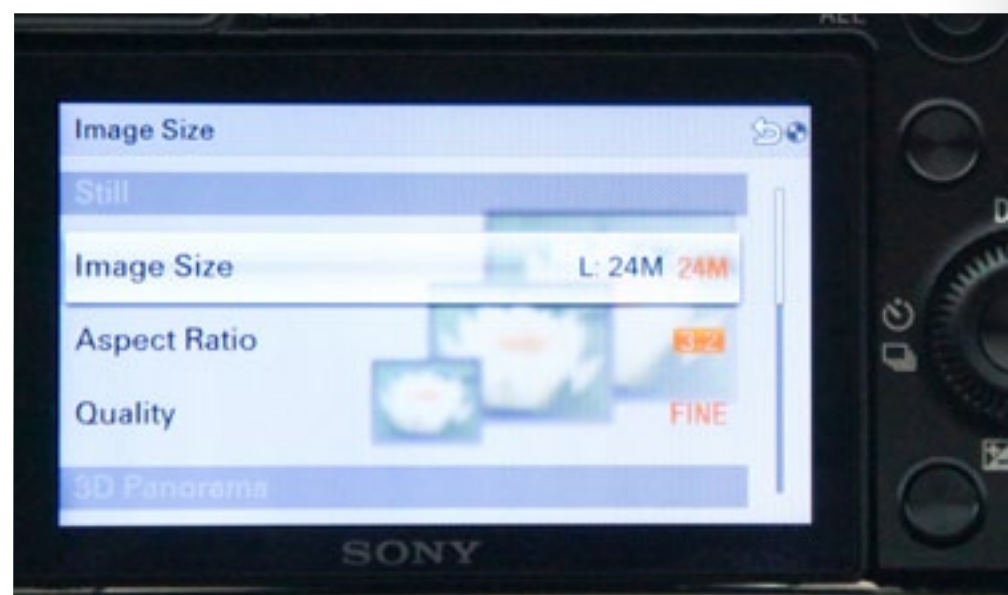
Continuing the tour, the right side of the camera is completely bare, leaving the rubberized grip to stand on its own. On the rear, there's the built-in EVF in the top left corner, with the 3-inch LCD below. Unlike the NEX-5N, there's no touchscreen functionality here, though you aren't likely to miss it. You may

opt to not even use the LCD at all — the XGA electronic viewfinder is sharp enough to completely replace the LCD for settings adjustment, framing and focusing. Dedicated controls include a flash release, playback button, AF/MF and AEL slider, a circular navigation dial with select, display, shooting speed and exposure compensation buttons. There's also a pair of variable controls that are used for launching and selecting different menu items. All of the buttons are easy to press, but not so much so that you need to worry about accidentally bumping one and changing a critical setting.

Centered below the lens on the bottom of the camera is a tripod mount, with a battery door to the right. Inside, there's the same 1,080mAh battery that Sony includes with all NEX cameras, and a combination SD / Memory Stick slot. The left side of the camera houses a pair of durable plastic doors, hiding an HDMI port, mini-USB connector and a microphone input jack for connecting your own audio source for video capture — a first for an NEX camera. There's also a rather stiff leather camera strap in the box, with Sony and NEX-7 markings on either side.

User Interface

The NEX-7's tri-navi interface isn't just another marketing gimmick — it works well, and enables direct access to key settings without the need to flip through menus or even back away from the EVF. By default, the left top dial



changes the primary capture setting — if you're in aperture priority, turning it changes your aperture, while the right control adjusts exposure compensation. In shutter priority, the left dial adjusts your shutter speed, with expo-



sure compensation again on the right. In manual, you have unfettered access to shutter speed adjustments on the left, and aperture on the right. In any of these modes, the secondary dial to the right of the LCD controls ISO, giving you instant access to aperture, shutter speed and ISO without clicking through to a single menu screen. A shift button to the right of the power slider changes the dial mode, instead letting you adjust focus settings, white balance, dynamic-range or Creative Style.

You'll still need to head to the system menu to get to a handful of seldom-used settings, such as turning off that awful camera beep, formatting a memory card (still buried at the bottom of the setup menu), turning on front-cur-

tain shutter to reduce camera noise and activating the viewfinder proximity sensor that switches to the EVF when you bring the camera to your face. Speaking of that auto-switching feature, we had no choice but to disable it on our camera, since tilting the LCD up often caused the EVF to light up and the primary display to go black. Otherwise, it worked fairly well, but it could benefit from a sensitivity adjustment.

The menu layout is virtually identical to what you'll find in other NEX cameras, though the camera icon is clearly a render of the NEX-7 rather than the generic mirrorless ILC displayed in other menus. You can view options and a full settings readout on either the LCD or EVF, though some screens are

stretched vertically, since the EVF has a 3:2 aspect ratio and the primary display is 16:9. There's also a horizontal and vertical level indicator, to assist in camera positioning.



Performance and Battery Life

Sony's certainly made a name for itself in the mirrorless camera category, and the NEX-7 won't be interrupting that winning streak. Overall, the camera is a solid performer. Still, it's not the fastest focusing imaging device in its class, though you won't be waiting long before your subject's sharp and ready to shoot. It can power on, focus and capture its first image in 1.5 seconds with the 18-55mm f/3.5-5.6 lens attached. There's a delay of 0.6 seconds when adjusting focus between subjects and firing another image, but it drops to 0.3 seconds when capturing another shot of a subject already in focus.

It also offers excellent performance in continuous mode, snapping a full 10 frames-per-second with focus and

exposure locked, and a solid 3 fps with variable focus and exposure — that former figure is one frame shy of Nikon's recently announced D4, which offers other benefits beyond the NEX-7, but also costs and weighs far more. The camera can also shoot in continuous mode with flash, snapping between one and three frames-per-second, depending on how much power the strobe needs to output. You may have some reservations about using the NEX-7 to shoot an important sporting event, but the ability to capture consecutive images at high speed shouldn't rank among them.

Like we've experienced with the Sony NEX-C3, the 7 offers fantastic battery life with a percentage readout on the LCD and EVF. The battery and charger are identical to the models used in every NEX camera to date, and we really have no complaints here. We were able to capture 700 stills and 45 minutes of HD video on a single charge over the span of five days, including plenty of time navigating menus and framing and reviewing images on the LCD and electronic viewfinder. If you're going to be away from a power outlet for more than a few days, it wouldn't hurt to bring a spare battery, but you should have no problem getting through a full day or two of shooting on a single charge.

Image Quality

So, the NEX-7 shoots up to 10 frames-per-second, has a large APS-C sensor, captures 24.3 megapixels and is compatible with pro-level DSLR Alpha



SAMPLE
IMAGES



A-mount lenses when paired with the LA-EA2 adapter. Why, then, would you still opt for a much larger high-end DSLR? One of the reasons is low-light shooting. The NEX-7 is capable of capturing images with a sensitivity of ISO 16,000, but will you want to? If you have no other choice — say you're shooting a football game on a dark field at night, or need to avoid blur while bouncing around on a subway car — then sure, ISO 16,000 is serviceable. But if we're being more realistic, anything above ISO 6,400 should be avoided.

To get a better idea of how the camera performs in low light, we shot the same scene — the interior of a dimly lit Manhattan church — at every image sensitivity setting between ISO 100 and 16,000. As expected, noise was completely indistinguishable at ISO 100 and 200, with smooth, artifact-free details. Noise became visible at ISO 400 and 800 at a 1:1 pixel (100-percent) view, but faded at a 50-percent view. At ISO 1,600 and 3,200, noise was visible at a 50-percent view, but faded at 25 percent, where we were able to spot noise in our ISO 6,400 sample. At ISO 12,800, we noticed it at 12.5 percent, but not when scaling the image to 600 pixels wide with a 1:1 view. With sensitivity set at ISO 16,000, we could see noise even after scaling the image to 400 pixels wide, making this mode generally unsuitable even for images shot for the web.

When we shot at lower ISO settings in both bright and dim light, however, our pictures displayed vibrant, accurate col-

ors, and sharp details. White balance was accurate in automatic mode, though the camera did take a second or two to adjust when quickly moving from a scene with one color balance to another. We spent most of the time shooting with the 24mm Zeiss lens, which likely played a role in the camera's output quality, though pictures looked sharp and vibrant as well when captured with the 18-55mm kit zoom.

The Competition

Traditionally, we've only seen sub-\$1,000 cameras in the mirrorless category, though the Sony NEX-7 and even more recently the Fujifilm X-Pro1 have raised the bar, both when it comes to performance and body-only price. The advantage of a higher-end model is clear, with both cameras delivering top performance with premium image sensors and body designs. We had a chance to check out the Fujifilm camera at CES, but were only able to view manufacturer-supplied samples, so we can't really speak to that model's image quality until we have an opportunity to shoot our own samples. It's also priced at \$1,700, which is a nearly 50 percent boost over the NEX-7's price tag.

If you're looking for a camera with a similar body size, there are plenty to choose from, ranging in price from our category pick, the Sony NEX-C3 (starting at \$499 with lens) to the \$900 Olympus E-P3. If you're comfortable investing in a camera with a 16-megapixel sensor, the NEX-C3 is an incred-

THE COMPETITION



ible value, and eight months later remains our top pick in the category. You'll lose out on many of the NEX-7's pro-level features, however, including the 24.3-megapixel sensor, 1080p video (720p on the C3), audio input, tri-navi interface, EVF and 10 fps capture mode, among other features. The NEX-7 really is in a class of its own, and if you're here for the features, there's really nothing else that can compare without stepping up to a full-size DSLR.

BOTTOMLINE

Sony Alpha NEX-7

\$1,200 (*body only*)

PROS

- Built-in EVF
- Tri-navi interface
- Superb battery life
- Excellent image quality
- 1080/60p video with mic input


CONS

- Expensive for a mirrorless camera

» Sony's NEX-7 is the company's best mirrorless camera yet, offering true DSLR image quality in a compact body.

Wrap-Up

As you may have gathered, we're quite smitten with the Sony Alpha NEX-7. The camera offers many features previously only accessible to full-size DSLR owners, delivering excellent performance in a body size only nominally larger than the NEX-C3 and 5N. With the exact same sensor that Sony uses in the Alpha A77, you can expect DSLR-quality images with the NEX-7, and the camera's 10 frames-per-second consecutive shooting mode really blurs the line between mirrorless and traditional ILCs. There's definitely room for improvement in the high-ISO department, but given the camera's size and even its \$1,200 price tag, we're willing to live without noise-free ISO 16,000 low light images.

If you want the full NEX-7 experience, you'll need to budget an extra grand for the 24mm f/1.8 Zeiss lens, which really is an excellent piece of glass. But even if that lens is priced out of reach, the 18-55mm kit zoom captured excellent images, and performs decently in low-light. The camera's focusing system, while accurate, isn't the fastest on the market, especially when you consider what's on the horizon. Still, the NEX-7 is a fantastic camera, and if you've been waiting for Sony to beef up supply numbers before taking the plunge, there's no reason to hold back now. 

Zach is a Senior Associate Editor and heads up Engadget's features content. He's also a lifetime lover of everything aviation and photography.


BEYOND THE REVOLUTION

EGYPTIANS AND
THEIR GADGETS,
POST-MUBARAK

BY SHARIF SAKR

ILLUSTRATION:
EDEL RODRIGUEZ



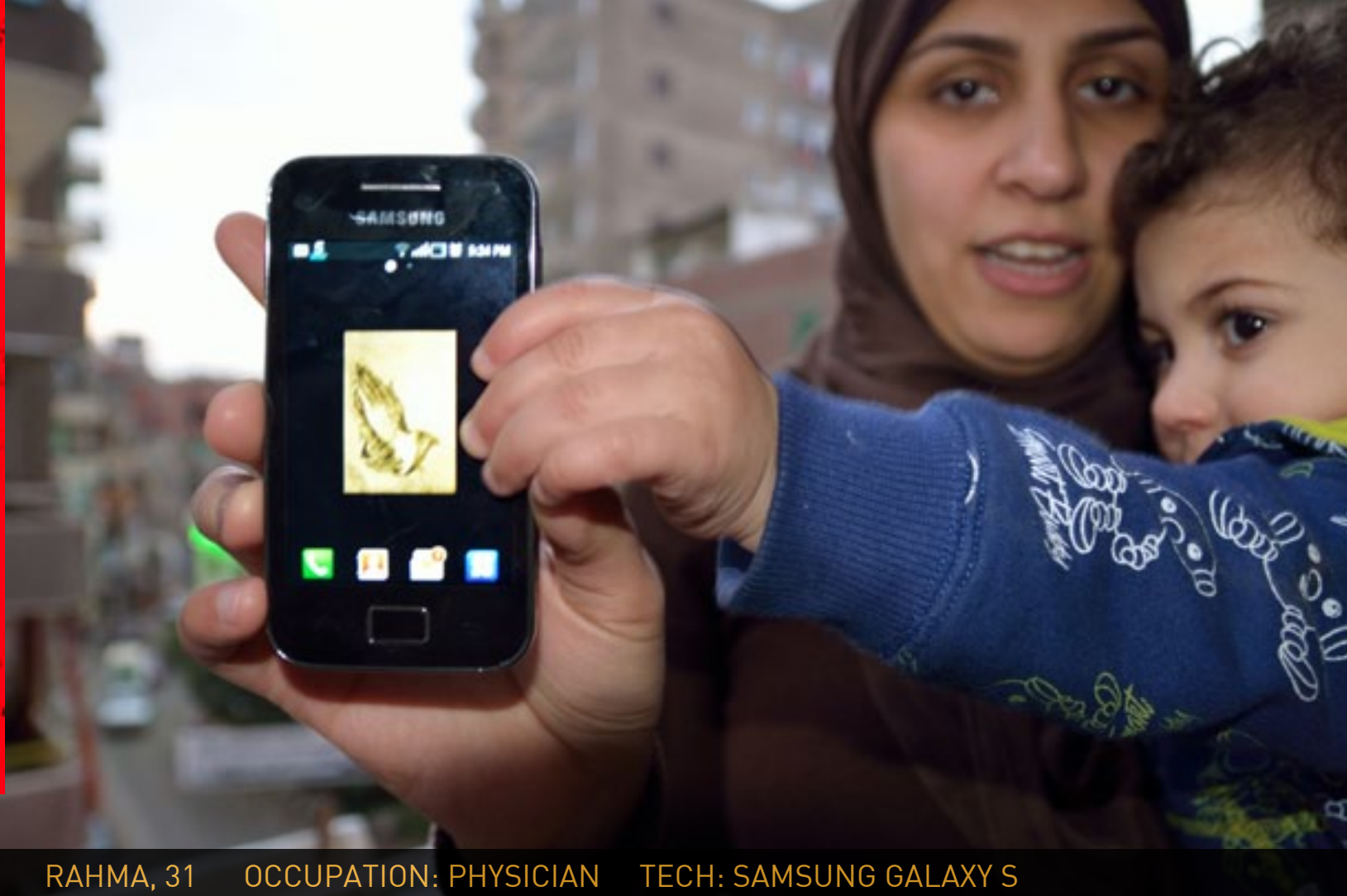


Is there such a thing as revolutionary technology? Many Egyptians believe there is. A year ago, they used mobile phones, social networking and banned TV channels to spread word of the protests in Tahrir Square. Hearing the news, thousands of young people risked their lives to join in and overthrow the dictator Hosni Mubarak. To mark the revolution's anniversary, we caught up with five Caireans of different ages and backgrounds to find out about the gadgets they use to keep in touch with their world. ¶ Egypt is a complex country in a complicated situation. Mubarak is gone, but now the army runs the show. Traveling around Cairo, it's clear that the revolution hasn't yet become history. In many ways, it's still going on. Hundreds of thousands of people returned to Tahrir

Square on the anniversary of the first big protest, January 25th, but they weren't interested in remembrance so much as pushing for faster democratic change. Amid this ongoing upheaval, the Egyptians I met were also trying to carry on with their careers and personal lives.

In this respect, they're just like people anywhere. When I told them I was a tech blogger and wanted to talk about gadgets, it became clear that their use of mobile phones and computers is pretty ordinary too — except for one crucial difference. Mobile phones and the inter-





RAHMA, 31 OCCUPATION: PHYSICIAN TECH: SAMSUNG GALAXY S

net went dead across the entire country during the early days of the protests, as the increasingly desperate regime tried to stop the revolt from spreading. As you're about to see, that blackout is still hot on people's minds and they no longer take their gadgets for granted.

Rahma lives right at the edge of Cairo, where her balcony overlooks the desert, and sand regularly blows in through her windows. Being so far out means she and her husband can afford a nice apartment, but it also means that commuting around this sprawling city for medical appointments has become a large and time-consuming part of her life. Google Maps is one of the main reasons she upgraded to a smartphone, after the battered old Nokia she had during the revolution succumbed to her one-year-old son.

The Galaxy S didn't come cheap:

“During the revolution we used Facebook to push each other to get involved. Now it's become like a virtual life in this country.”

2,100LE (\$350) for a prepaid handset is more than most Egyptians can earn in a month, but to Rahma it was worth it. In addition to navigation, she uses it to check her work emails, look up medical research and — in her free time — connect with her friends on Facebook, which is the only extra app she's installed so far. “During the revolution we used Facebook to push each other to get involved,” she says. “Now it's become like a virtual life in this country. Perhaps it's not healthy, but I'm addicted.”

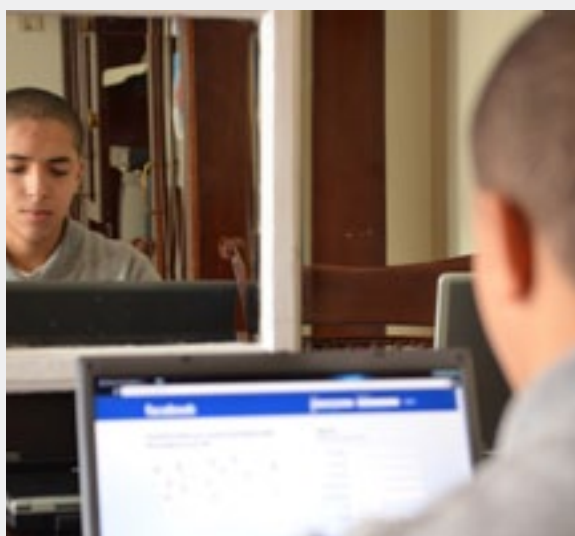
When asked what network she's on, Rahma beams and says, “Vodafone! I



love it.” This is perhaps a surprising response, considering that Vodafone was widely criticized for sending out SMS messages to all its Egyptian customers during the protests, telling them to obey Mubarak’s government. “I received those texts,” she says, “and I hated them. But I just deleted them straight away. You can’t just blame Vodafone, because all the networks did it. It was a condition of their license to operate in Egypt.”

Amr can’t afford mobile internet, because he needs to keep his monthly top-up expenditure below 25LE (\$4). He’s not crazy about phones anyway, whether it’s the Nokia he had during the revolution, or the Sony Ericsson he uses now. He talks about maybe upgrading to a smartphone, but it’s just one of many fleeting ambitions — a bit like his younger cousins’ fascination with expensive Power Balance wristbands, which are still all the rage here thanks to celebrity endorsements and a lack of consumer protection.

Amr’s fixations become more concrete



**To get online,
he travels 40
minutes by bus
to his cousin’s
flat...**

when he talks about PCs. He has a decent laptop that was given to him by the Ministry of Education after he won a robotics competition. To get online, he travels 40 minutes by bus to his cousin’s flat, which has 2Mb/s ADSL. All the boys get together there to play *Medal of Honor* and sometimes they cross the road to play *Counterstrike* and *CoD* in their local cyber cafe — although the “noise, insects and broken headphones” mean they only do that a few times a month, when they’re “desperate.”

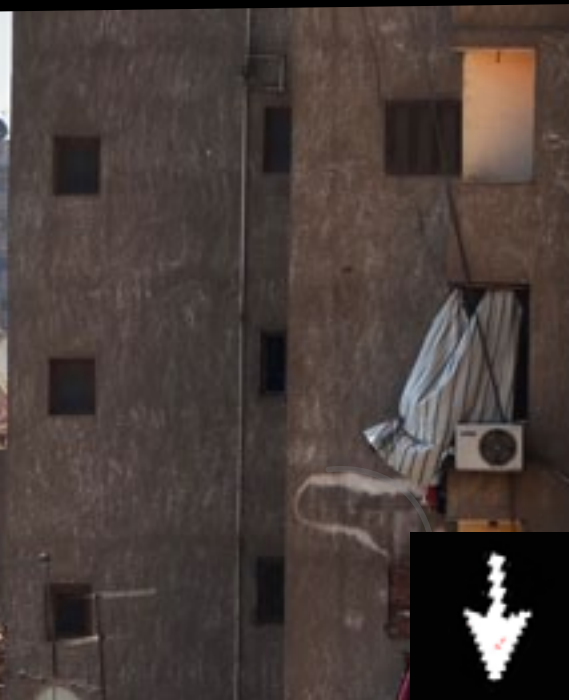
Amr is more politically aware than your average teenager and

his laptop plays a big part in that. When we met him a few days before the anniversary, he was scouring Facebook for news and gossip about the likelihood of renewed violence — whether due to clashes between the authorities and protesters who are frustrated with the pace of change, or simply due to criminals who might exploit any chaos in the streets. “I read that lots of people have got guns from Libya. Too many people have weapons now and it’s very scary.”





“If the revolution hadn’t happened, I’d probably still think of the internet as a silly thing. But when they shut it down, it was like they hit us directly.”



NADINE, 27
OCCUPATION: JOURNALIST
TECH: IPHONE 4



One of the proudest mementos on Amr's Facebook wall is a photo of him standing beside an Egyptian soldier in Tahrir Square on the day that Mubarak finally stepped down. There's another one of him and his cousins looking both victorious and afraid next to the huge tracks of an APC. "If the revolution hadn't happened, I'd probably still think of the internet as a silly thing. But when they shut it down, it was like they hit us directly. It was a wake up call."

While millions of tourists pass effortlessly through this country's border controls each year, most native Egyptians have very little freedom of movement. Many obstacles are put in the way of travel, but some people have managed to maintain links to other countries. Nadine is among that generally wealthier minority. She speaks fluent English

"When the government shut everything down, people were panicking, so now they've realized these things are important."

with a slight American tinge, travels regularly to the UK, and can afford to pay Western prices for things — like the iPhone 4 she picked up in London and the MacBook she bought from an Apple dealer in Cairo. The MacBook alone cost 9,000LE, which is roughly what a family of six might need to spend on groceries in an entire year.

"Apple products aren't so common here," Nadine acknowledges. "There was a government drive some time ago to make [Windows] PCs more affordable, and these days you can pick one





MAHMOUD, 25 OCCUPATION: SATELLITE ENGINEER TECH: TOSHIBA LAPTOP

up very cheaply, but Mac prices weren't affected." On the other hand, she adds that iPhones are no longer as elite as they used to be. "My driver has a 3GS, which he got second-hand." She adds that it's possible to find iPhones and other smartphones at knockdown prices on Abdel Aziz Street, which is notorious for hawkers of used and stolen goods. "There are definitely more people wanting smartphones since the revolution," she says. "When the government shut everything down, people were panicking, so now they've realized these things are important."

Mahmoud is a wiry man who spends much of his time dangling from balconies eleven floors above oblivion. He

runs his own small business and has a young family to feed, but he charges just 60LE (\$10) on a standard satellite installation or repair job — even if the job lasts half a day. With that level of income, he's not going to blow 200LE per month on ADSL — and yet he says that getting online with his laptop is extremely important to him.

People in Mahmoud's situation have to be resourceful. A common trick is to split the cost of a cable subscription by sharing a single connection throughout an apartment building. Mahmoud even claims it's possible to get web access totally free of charge using a satellite signal — although he refuses to elaborate, beyond admitting "it's slow."



Mohammed paid the 60LE necessary to have his own dish installed. He could have avoided even this modest cost if he'd accepted the central service supplied to his building, but he says it carries channels that "aren't suitable for the grandkids, or even for old men." By having his own dish and receivers, he has more control.


Satellite TV was especially important to Mohammed during the revolution. Like many of his age, he didn't go to Tahrir Square, but he was desperate to know what was happening. "I watched the protests for about eight hours a day," he says. His favorite channel was and still is an Al Jazeera offshoot called Mubasher Mizr, which broadcasts rolling live news specifically focused on Egypt. Its plain-speaking content would never be permitted on terrestrial TV channels, which are wholly owned and operated by the government. In fact, the authorities would love nothing more than to shut down Mubasher Mizr, but they can't quite manage it. "They recently closed the channel's offices here, so now the sig-



Like many of his age, he didn't go to Tahrir Square, but he was desperate to know what was happening.

nal has to be routed from Qatar," Mohammed says. "Because of that, many people have trouble receiving it — but I know how to receive it and I can show people."

There's no way that these individuals can be regarded as a representative sample of a country of 85 million, or even of Cairo. But speaking to them about their gadgets provided me with a genuine glimpse inside their lives, and — perhaps more importantly — it was

a good icebreaker. Although I'm culturally British and there's a lot I don't understand about Egypt, I found I was able to talk with Egyptians all day long about the relative virtues of a Samsung GSII or the best way to get more power out of an Intel Celeron laptop. None of the people I spoke to were geeks, but when it came to the technology of communication and its importance to personal freedoms, they all were. 

Sharif is a British tech journalist with ten years' experience filming and reporting news for the BBC and other broadcasters.



REVIEW

Samsung Galaxy Tab 7.7 Global Edition

With record-breaking battery life, a gorgeous display and thin design, this tablet raises the bar for 7-inch slates.

BY DANA WOLLMAN

Within an 11-day period last fall, Engadget published reviews of two different Samsung Galaxy tablets. At the time, we felt the company was turning into a caricature of itself, with slates in every conceivable size, including

10.1, 8.9 and 7 inches. Mostly, though, if we sounded exasperated with Sammy's "see what sticks" strategy, it was because the outfit unveiled not one, but two 7-inchers over the course of a month. One of these, the 7.0 Plus, went

on sale in the US back in November, with mid-range specs and a mid-range price to match its in-between size. But that tablet always felt like a consolation prize next to our second contender, the Galaxy Tab 7.7, which brings a brushed metal back, 10-hour battery and Super AMOLED Plus, 1280 x 800 display. Even on paper, it always seemed promising. *Special.*

Maddeningly, though, those of us here in the states still can't buy one through the likes of Best Buy and Amazon, and though Verizon Wireless plans to sell an LTE-enabled version, we know scant few details about when it will arrive, how much it will cost or whether there will be an off-contract option. Luckily for us, our friends over at Negri Electronics hooked us up with an international model, one with 16GB of internal storage and WiFi, HSPA+ and EDGE / GPRS radios — a doozy of a tablet that would cost you \$668.50 if you were to import it to the US. (You can buy it domestically if you live in select markets like the UK.) So is the product novel enough to warrant that novelty price? Read on to find the answer to that question and more.

Hardware

If you were to compare our last few reviews of Galaxy tablets, you might find the design paragraphs tend to bleed together. Thin, lightweight. Well-made, but plasticky. Wash, rinse, repeat. But the 7.7 feels like more than just a rehashed device re-tooled to accommo-

date an odd screen size: it's a clear step up from the original Galaxy Tab, along with the 10.1, 8.9 and 7.0 Plus that have followed since. With this device, Samsung trades the tried-and-true plastic backing for a brushed metal lid with plastic strips on either end, allowing for optimal antennae reception — a design choice that brings to mind the Flyer and other HTC-made devices. Like the 10.1, there's a thin metal ring around the front surface, though it's a thinner, subtler band than before. So far as we can tell, the bezels are the same width as the ones you'll find on the 7.0 Plus which is to say they're reasonably narrow. And that's not even mentioning that stunner of a Super AMOLED Plus screen. What more can we say, then? It doesn't take a loyal Samsung fan to tell this is simply a higher-quality piece of kit.

At least as far as the industrial design, those of you who impatiently bought the 7.0 Plus needn't feel too jealous: at 335g (.74 pounds) and 7.89mm (.31 inches) thick, it doesn't feel much thinner or lighter than its smaller sibling, which weighs 345g (.76 pounds) and measures 9.96mm (0.39 inches) thick. In any case, both devices are exceptionally slim compared to other 7-inch tablets. Also, while the casing here is made of metal, those flimsy door covers have carried over from earlier models. So to anyone making do with an older Samsung tab, we can assure you the build quality hasn't improved drastically. Both the 7.7 and 7.0 Plus feel solid, save for those skimpy port covers; it's just

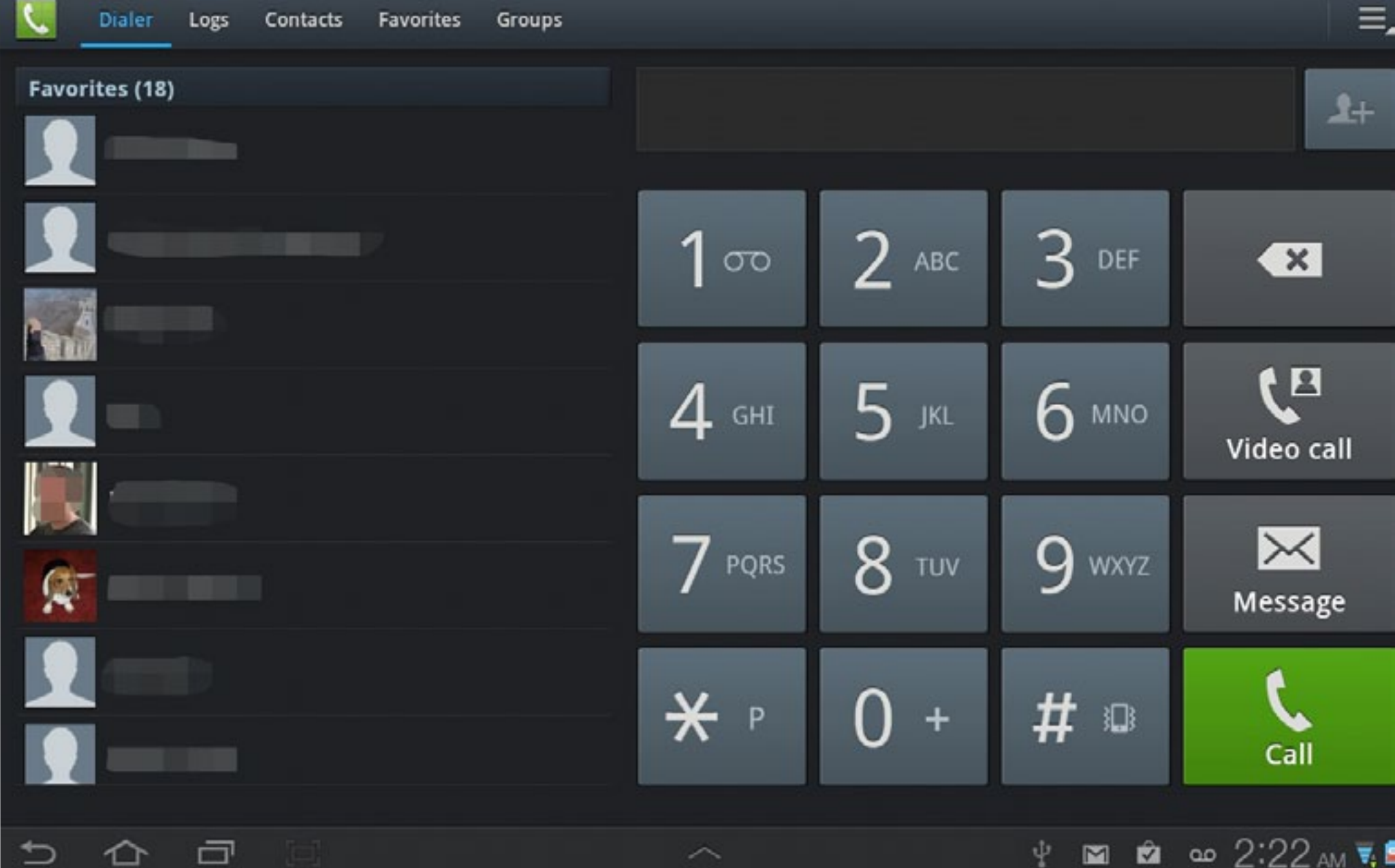


that the 7.7 *looks* nicer, and feels more pleasing in hand.

Interestingly, Samsung has placed the 2-megapixel front-facing camera on one of the shorter, portrait ends — just like on the 7.0 Plus. If you remember, though, the Galaxy Tab 8.9, has a landscape-oriented front camera, suggesting that larger tablet was intended to be used primarily in landscape, not portrait mode. It's clear, then, that whatever that magical cut-off set by Samsung's design team, it's larger than 7.7 inches, but smaller than 8.9. Which makes sense to us, given that the 7.7's 16:10 aspect ratio makes it far easier to

type in portrait mode. Depending on the size of your hands, you might be able to swing landscape too, though if you have smaller fingers like *some* of us, you might want to consider installing SwiftKey X as an alternate 'board.

Continuing our tour around the device, you'll find the mic slit directly to the left of that front-facing camera, with the 3.5mm headphone jack sitting on the top edge of the device, just behind it. The opposite side (read: the other portrait end) is home to twin speakers, along with the proprietary docking connector Samsung has used on all of its Galaxy tabs, which you can use to charge



the device via USB or the included AC adapter. As with the 7.0 Plus, you won't find a USB socket on the device itself; any tethering to your PC must also happen by way of that special connector. Turn the device around so that the front camera is on your left, and you'll see that long edge on top houses the power / lock button, along with a volume rocker. On the side opposite that, you'll find the SIM and microSD slots.

Inside, the tablet packs the usual array of radios and sensors, including 802.11n WiFi, Bluetooth 3.0, an accelerometer, digital compass and gyroscope, along with proximity and ambient light sensors. Interestingly, Samsung decided not to include an IR emitter in this global version — something it built into the Verizon

Wireless-bound 7.7 and the lower-end 7.0 Plus and paired with Peel's universal remote app. Additionally, A-GPS and GLONASS are on board, as well as EDGE / GPRS (850, 900, 1800 and 1900 MHz) and 21Mbps-capable HSPA+ (850, 900, 1900 and 2100 MHz) radios. Naturally, the US version headed to Verizon Wireless will instead offer LTE and CDMA connectivity.

Voice Calls

We wouldn't go so far as to call this hulking thing a phone, but Samsung did go out of its way to bundle a calling application so you don't have to wonder if Skype and other apps will play nice with this particular device. Sammy's touting a so-called Receiver Mode

that allows you to avoid broadcasting the call to others — even if you're not wearing a Bluetooth headset. Indeed, you can place a call with the tablet pressed against your ear, though we only recommend doing this once, for comic effect. Suffice to say, you'll probably want to plug in headphones or pair the tablet with a Bluetooth earpiece.

You can place a call with the tablet pressed against your ear, though we only recommend doing this once, for comic effect.

To be clear, you'll need a SIM in order to place calls from the app, even if you have a WiFi connection. At that point, you can place VoIP calls, or turn off HSPA+ and WiFi for a more old-fashioned sort of connection. As you'd expect, when you use the app your friends will see an incoming call from whatever number is associated with the SIM. All told, callers often had trouble hearing us, and either asked us to repeat ourselves or answered our questions with non-sequiturs after misinterpreting our side of the conversation. At worst, friends said we

sounded muffled, and that they could only follow along if they happened to be parked in quiet areas. At best, we were told the call quality was clear but distant. For our part, calls sounded a bit less natural with headphones, though that's obviously a more ergonomically sensible solution than holding the tablet to your ear. We also placed some calls over the speaker, which proved sufficiently loud — *if* we happened to be calling from a quiet room.

And what an intuitive app you have to place all those calls. Once you sign into your Google account — a key step in setting up your new tablet — the 7.7 will silently copy any existing Google contacts, so that your favorites and friends' numbers will appear as they do on whatever Android handset you already happen to own. (Whatever contacts you have stored on the SIM card will show up too, unless you un-check that option in the settings.) Conveniently, the dial pad also includes large, finger-friendly shortcuts for starting a video call or sending a message, which can take the form of a simple SMS or an MMS with a photo, video, sound clip, location, sketch, contact, calendar event or memo attached.

Display and Sound

Remember how we said 7.0 Plus owners shouldn't feel too resentful of the 7.7's build quality? Yeah, well, that statement didn't include the 7.7's 1280 x 800, 197 pixel-per-inch screen. As it happens, this is the first Galaxy Tab to rock a non-



The contrast here is so deep, and the viewing angles so wide, that other tablets' screens look washed-out in comparison.

PenTile, Super AMOLED Plus display, and man, is it a winner. We could tell you it's vibrant, stunning and breathtaking, but even that wouldn't quite do it justice. The contrast here is so deep, and the viewing angles so wide, that other tablets' screens look washed-out in comparison. By itself, for instance, the 7.0 Plus' display is plenty bright and pleasant to look at, but place it next to the 7.7 and the transition is about as jarring as moving from the Transformer Prime to the Ainovo Novo7. The Super AMOLED Plus panel represents a clear step up from most other tablet displays, which sadly haven't received the same

level of tender lovin' care as their smart-phone cousins.

And, at the risk of getting ahead of ourselves, the 7.7 also has phenomenal battery life, so the gorgeous display makes an especially excellent foil for that 5,100mAh juicepack. After all, if your tablet's capable of a 12-hour movie marathon, it may as well have a striking display to match, right? Also, because the runtime on this thing is so fantastic, we had no qualms about cranking the brightness while using the tablet outside, which made the screen easy to make out in direct sunlight.

If you like, you can also choose from

BENCHMARK	SAMSUNG GALAXY TAB 7.7	T-MOBILE SPRINGBOARD	TOSHIBA THRIVE 7"	SAMSUNG GALAXY TAB 7.0 PLUS
Quadrant ¹	1,947	1,871	Would not run	2,700
Linpack Single-thread ¹ (MFLOPS)	53.76	46.22	31.37	28.98
Linpack Multi-thread ¹ (MFLOPS)	81.07	58.81	57.08	69.47
NenaMark1 ¹ (fps)	59.5	43.2	43.1	59.3
NenaMark2 ¹ (fps)	37.9	27.9	19.2	41.8
Vellamo ¹	1,220	1,161	1,045	1,198
SunSpider 0.9.1 ² (ms)	1,488	2,471	2,303	1,679

¹Higher the score the better

²Lower the score the better

one of three color modes, including standard, dynamic and movie. And, on a note unrelated to the beauty of the display, the panel used here offers some excellent palm rejection. Not only that, but we were also able to grip the tablet in one hand without accidentally opening apps or disturbing the onscreen menus.

The 7.7 won't be the exceptional tablet with good enough sound to replace a dedicated set of speakers, but for what it is, the sound is loud, and the audio quality is relatively balanced. We only noticed a smidgen of tinniness while listening to The White Stripes, though we did catch some distortion while blasting Gorillaz at top volume. It's worth repeating, too, that both speakers are on the same side of the device, which means you won't enjoy stereo sound if you watch a movie in landscape mode.

Performance

Like the Galaxy Note, which was announced on the same day, the 7.7 packs a Samsung-made, dual-core 1.4GHz Exynos processor, along with 1GB of RAM. The tab also has a Mali-400MP GPU. Though the Note and 7.7's numbers are too disparate for us to call this an encore performance, it's safe to say this is one of the fastest Android tablets on the market, especially in that sub-category of 7-inchers. As you can see, it faces its stiffest competition in the 7.0 Plus, which also has 1GB of RAM, along with a slightly slower 1.2GHz dual-core CPU. (We'll take the 7.0 Plus' astronomical Quadrant score with a grain of salt, as the test favors devices with lower-res screens, but suffice to say, its graphics scores in NenaMark are impressive.) Aside from that, the 7.7 established a

wide lead over competing tablets like the T-Mobile Springboard and the Toshiba Thrive 7". By all metrics, this thing is speedy.

For the most part, the 7.7 backs up its stellar benchmark scores with fluid performance. In particular, we were impressed with how smoothly the screen responds to pinch-to-zoom, and how nimbly websites and other pages re-scaled. The tab's quick to launch apps and respond to all manner of taps and swipes, though it's not completely immune from the sort of mundane sluggishness we've observed in other Honeycomb tablets. Occasionally, the 7.7 paused when we moved to minimize an app. Once, too, we noticed some stuttering while scrolling in the browser, though this ultimately proved to be the exception, not the rule. The accelerometer is also quick — almost too quick — to detect changes in orientation, so much so that we often had to tilt the tablet to change the orientation back again. Again, though, these are small blemishes on an otherwise spotless experience.

Battery Life

The 7.7's 5,100mAh battery is rated for up to 10 hours of video, but in a rare twist, we managed to squeeze out more runtime than that. Much more. All told, it lasted a staggering 12 hours on our video looping test, even with WiFi on and the brightness fixed at 50 percent (3G was disabled). That makes it the longest-lasting tablet we've ever seen. Not the longest-lasting 7-incher, mind

TABLET	BATTERY LIFE
Samsung Galaxy Tab 7.7	12:01
Apple iPad 2	10:26
ASUS Eee Pad Transformer Prime	10:17
Samsung Galaxy Tab 10.1	9:55
Apple iPad	9:33
Motorola Xoom 2	8:57
HP TouchPad	8:33
Lenovo IdeaPad K1	8:20
Motorola Xoom	8:20
T-Mobile G-Slate	8:18
Samsung Galaxy Tab 7.0 Plus	8:09
Lenovo ThinkPad Tablet	8:00
Archos 101	7:20
Archos 80 G9	7:06
RIM BlackBerry PlayBook	7:01
Acer Iconia Tab A500	6:55
Sony Tablet P	6:50
T-Mobile Springboard (Huawei MediaPad)	6:34
Toshiba Thrive	6:25
Samsung Galaxy Tab	6:09
Motorola Xyboard 8.2	5:25
Velocity Micro Cruz T408	5:10
Acer Iconia Tab A100	4:54
Toshiba Thrive 7"	4:42

you, but the longest-lasting tablet — one with enough juice to trample the iPad 2's long-standing record by an hour and



a half. The 7.7 also has a battery-saving mode, so presumably you could push past that 12-hour-mark — you know, in case you need your tablet to stay alive through more than just a roundtrip flight from New York to LA.

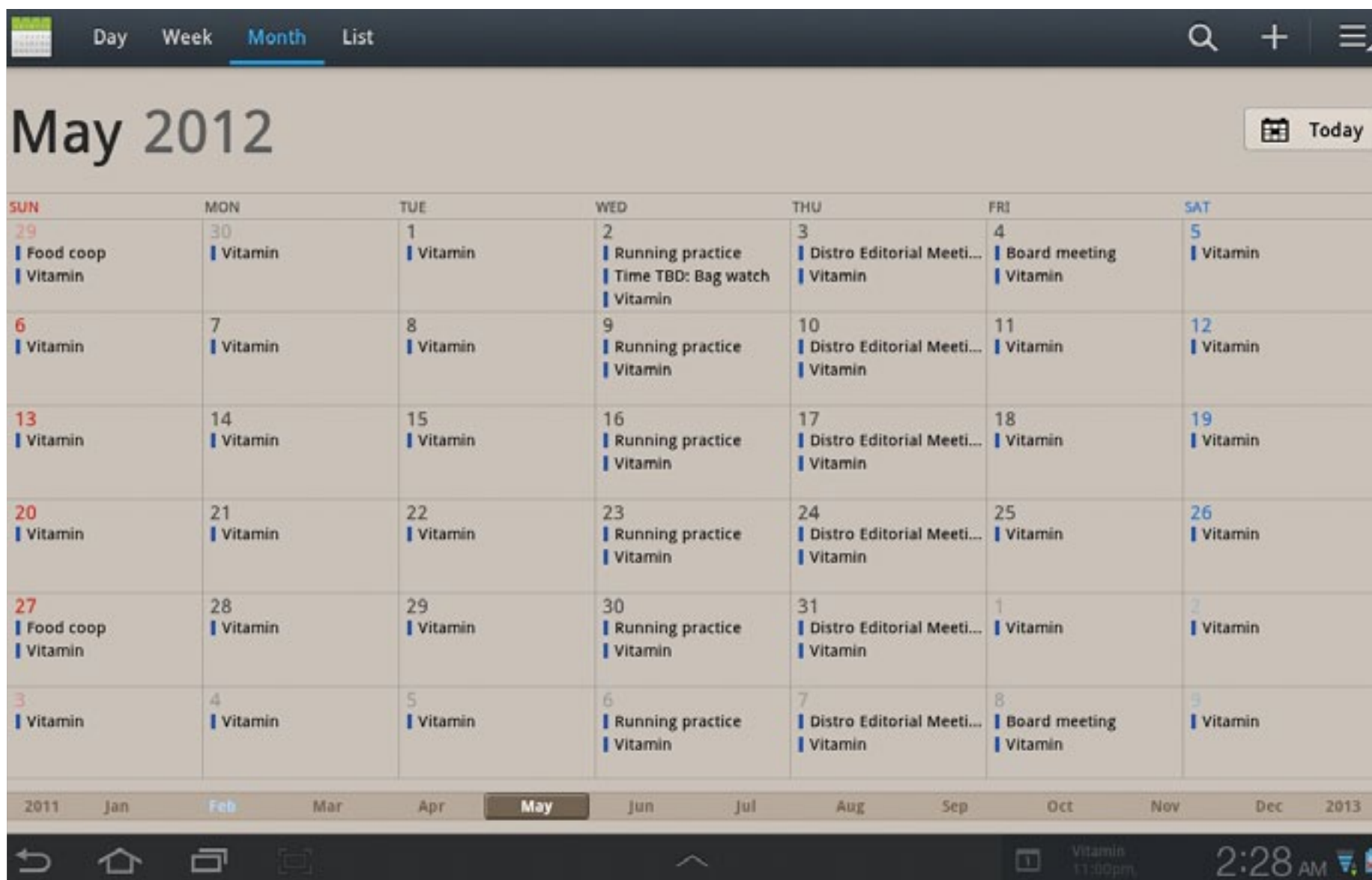
What's insane, of course, is that this tablet also happens to be one of the thinnest we've seen. If Samsung can build a tablet this slim *without* skimping on battery life, what's Toshiba's excuse? Or Motorola's? In a way, the 7.7 reminds us of the Droid RAZR Maxx, a phone we also reviewed in this issue: we recommend it in its own right, but we also like to think it could be a harbinger of other long-lasting devices to come.

Camera

Though other 7-inchers offer a bump in resolution, the 7.7's 3-megapixel / 720p camera nonetheless captures

an impressive amount of detail, staying faithful to the grease on a plate of hash browns, and the rough texture of concrete walls. We were also generally pleased by the balanced, not-too-saturated colors, though twice during our testing the tablet spat back images splashed with a blue overcast. At least, we were able to achieve more natural results on our second try, but even then the background appeared washed-out. In a few other sample pictures, too, details like clouds and the blueness of the sky simply get lost in translation.

And, in a neat touch, you can zoom in on photos by pressing a thumb onto either end of the screen and titling the tablet back and forth. Thanks to the flash, we were able to eke out some clear shots in a restaurant, though, most of our shots taken in the dimly lit bar are peppered with noise particles.



Software

As you'd expect, the Tab 7.7 goes the way of every other recent Galaxy Tab and comes loaded with Samsung's own TouchWiz UX layered on top of Android. For now, that would be Honeycomb (version 3.2, to be exact), though the company has said an update to Ice Cream Sandwich is coming... eventually.

We won't spend too much time rehashing the ins and outs of the user interface, as this is ground we've tread many times before. Suffice to say, Samsung has tinkered with almost every aspect of the experience, including the calendar, among other key apps. Also on board: Game Hub; Social Hub; Readers Hub; custom file, task and

download managers; and a feature that allows you to take a screenshot anywhere in the OS and then share or doodle on it. All told, these customizations aren't terribly intrusive, but not every single tweak registers as an improvement over stock Honeycomb, and fans of vanilla Android might resent it on principle.

Otherwise, the list of third-party apps is limited, with Polaris Office and Pulse as the major standouts. Beyond that, it's Google-made apps, such as Places, and all the little pieces that make TouchWiz TouchWiz.

Configurations and Pricing

Though we tested the lowest-end model

with 16GB of internal storage, it's also available in 32GB and 64GB flavors. Of course, it's also headed stateside, where Verizon Wireless will sell a variant with LTE and CDMA radios inside. Unfortunately, though, the company hasn't announced pricing and availability, and we also don't know if it will be possible to buy the tablet off-contract and buy pay-as-you-go data packages as needed. So, US friends, if you like what you see here and you gotta have it now, it's time to call an importer.

We can't remember ever seeing a tablet this size that was so carefully designed.

Since, the Galaxy Tab 7.7 hasn't hit Verizon yet and isn't on sale in places like Amazon US, folks here in the states will have to import it from places like Negri — not exactly a cheap option, with the 16GB WiFi-and-3G version going for \$668.50. (The 16GB WiFi-only model costs a still-pricey \$592.50 through Negri.)

Then again, even in markets where you can purchase it domestically, you'll pay dearly for that sliver-thin design, long battery life and Super AMOLED Plus display. A quick perusal of Amazon UK, for instance, shows that the 16GB model with an HSPA+ radio costs £808.48, while the 16GB, 3G-enabled

7.0 Plus can be had for £521.24. Obviously, we don't know domestic US pricing yet, but if the 16GB 7.0 Plus costs \$350 here, the entry-level 7.7 is *going* to be expensive for a 7-inch tablet. Point is, this is not for the faint of heart or folks who are just in it for the YouTube videos.

The Competition

If you're looking for something as thin, light, beautiful, fast and long lasting as the Galaxy Tab 7.7, you won't find it — not in the 7-inch category, anyway. The question, then, should be, how much are you willing to pay for near-perfection? If you're reading this section as a primer for your own comparison shopping, we're going to go out on a limb and assume you're well aware of the Kindle Fire and Nook Tablet, but decided not to take the sub-\$300 bait. Indeed, while these products offer a compelling set of features for the money (along with surprisingly decent screens), you'll find the battery life mediocre and the overall performance lacking, especially compared to a powerhouse like the 7.7.

Even in the middle tier, though, many of the options are unsuitable, thanks to short battery life, thick, chintzy designs or sometimes both (we're looking at you, Toshiba Thrive 7"). There are a couple of compelling options, though — namely, the Galaxy Tab 7.0 Plus and the T-Mobile Springboard (also known as the Huawei MediaPad outside the US). The 7.0 Plus, in particular, is thinner and lighter, with faster performance and

two hours more runtime than what the Springboard is capable of. Still, despite some middling battery life, the Springboard is attractively designed, well-made, decently fast and sports a lovely IPS display. If you go for that, though, skip T-Mobile's two-year agreement and pay a little extra for an off-contract device for which you can buy HSPA+ data packages as needed.

Wrap-Up

As crowded as the market for Android tablets has become, the impossibly long-lasting Galaxy Tab 7.7 belongs in an elite echelon of memorable devices — a fraternity that's home to the likes of the older Galaxy Tab 10.1 and the ASUS Transformer Prime (GPS issues notwithstanding). Putting it bluntly, the 7.7 is the best 7-inch tablet money can buy: it performs well, offers a stunning screen and manages to deliver twice the battery life of other small tablets, despite being markedly thinner. In fact, we can't remember ever seeing a tablet this size that was so carefully designed. But here it is, and it presents the same level of quality that the 10.1, iPad 2 and Transformer Prime offer in the 10-inch category.

Really, our biggest caveat is that it's expensive, even compared to mid-range models like the \$350 7.0 Plus. The 7.7 isn't a plaything for mainstream consumers, but people who care deeply about laying claim to the latest and greatest gadgets, and are willing to pay dearly for the privilege. As any early

adopter would tell you, getting burned on price is just one trade-off to scoring bragging rights. Indeed, such enthusiasts might well decide that a nearly

BOTTOMLINE

Samsung Galaxy Tab 7.7 (Global Edition)

\$593+


PROS

- Record-breaking battery life
- Brilliant Super AMOLED Plus display
- Fast performance
- Thin and light, well-made

CONS

- Expensive, especially for a 7-incher
- Not immune to Honeycomb-related hiccups

» With record-breaking battery life, a gorgeous display and thin design, this tablet raises the bar for 7-inch slates.

\$250 premium over mid-range tablets is worth the long battery life, brisk performance and brilliant display. So is that you? Do you need the best *that* badly? We'll let you do some soul-searching and chew on that for a bit. 

Dana Wollman is Reviews Editor at Engadget, a marathoner, lover of puns and a native Brooklynite.

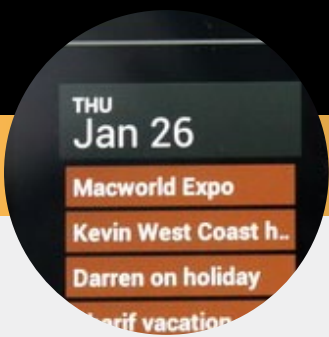
>> IN REAL LIFE

Welcome to IRL, an ongoing feature where we talk about the gadgets, apps and toys we're using in real life and take a second look at products that already got the formal review treatment.

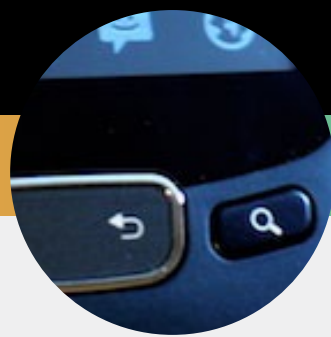
1.



2.



3.



Voltaic Spark, LG Optimus One and the Galaxy Nexus

BY ENGADGET STAFF

Want to read about Facebook's inflated valuation? A (debunked) rumor that Snooki is pregnant? Neither do we. So, let's do what we do best, and talk gadgets instead. This week, Engadget editor Don Melanson defends his phone of choice, James takes the Voltaic Spark for a spin in Spain and Mat talks about bonding with the Galaxy Nexus at CES. (Sadly, this fling, like others before it, stayed in Vegas.) How's it all working out for them? Let's find out.

Voltaic Spark

In London, sunny days are a summer-time-only treat, so owning a solar-powered charger / bag requires a bit of optimism. Spain, however, is a different story. A recent drive to the east coast of the peninsula seemed like a good excuse to put one to the test. The Spark is primarily a tablet case, but I found it capacious enough to hold not only my iPad, but my Kindle, travel documents and a few cables, etc. with



plenty of room to spare. The bag has a hard outer shell, which keeps your gadgets safe, and there's a convenient (though sadly unpadded) strap for lugging it about.

The battery inside comes pre-charged and is good for a few tablet top-ups, but it was the recharging out in the “field” that interested me. Valencia in December is far from tropical, but skies are clear and blue, and temperatures still reach the twenties (C) / seventies (F), so it was still a great chance to test the solar panels. Walking around the city meant a mix of periods spent in the sun and shade. Predictably, the charging lights kicked in comfortably when exposed to direct sunlight; in the shade — not so much. One side effect I noted: this thing is eye-catching. My companion and I were accosted several times by intrigued shopkeepers, asking what was in the bag, and it con-

stantly received curious glances as we walked around.

Spending a few hours out in Iberian daylight added enough power for a small charge, but it definitely needs to be banked up a little more if you want to get a full cycle out of it. The battery has two USB ports, one for six-volt output, and the other for more power hungry 12-volt devices, but it means you can cover your most important items — e.g., your phone and tablet. As we were doing a lot of driving on the trip, I found leaving it in the back window (not while parked, obviously) was another good way to squeeze some cheeky sunlight into it while on the move. I have to say, there's something indescribably pleasing, almost liberating, about having a portable — and, more importantly, free — power source with you at all times. A shame, then, that I live in London, but it's an ideal holiday accessory nonethe-

less. I guess it goes without saying that this is no replacement for your dedicated power supply, but if you're looking for a case / bag anyway, and want the added bonus of on-the-fly power boosts, then this will certainly do that, for a price. — *James Trew*

Galaxy Nexus

While you've already heard we were toting all sorts of mobile devices at CES last month, European draftees like myself were slightly more constricted. Simple: switch around SIMs, right? Yeah, we do this a lot on in the UK, but trans-Atlantic switch-arounds often don't work out unless you know exactly what radios you're handling. I fortunately still had my hands on a Galaxy Nexus review sample — and that penta-band radio meant I was able to keep my phone settings and cat wallpapers and simply swap in an AT&T SIM. HSPA+ data speeds were mine — when I wasn't swimming in EDGE or juggling WiFi.

The Galaxy Nexus did exactly what I hoped it would. Sure, the camera wasn't going to see much professional use — we had Engadget-issued NEX-C3s for that — and there was no S-Pen to make notes on the fly, but its multitasking chops made light work of switching between the convention center's Google Map schematics, my show floor notes,



and Engadget's mobile site. Now, if only there was LTE reception on this European model... — *Mat Smith*


LG Optimus One

This may come as a bit of a surprise considering the publication I write for, but I don't always feel an urgent need to upgrade to the latest and greatest devices. My main computer is a non-unibody MacBook Pro that's still

going strong (it's the last model before Apple switched to the current design, and its keyboard still trumps any performance needs), and my phone is a decidedly not-high-end LG Optimus One (mostly identical to the Optimus T in the US).

I bought it over a year ago because

at \$150, it was one of the best reasonably priced options to be had off-contract; here in Canada, smartphones are generally sold with agreements lasting three years, not two, which has caused me to studiously avoid contracts altogether. I also figured it'd be a relatively short-term solution to tide me over until something swayed me enough to take the plunge into contract-land, or shell out for a pricier off-contract option.

Since then, I've come to like the Optimus One quite a bit. It's small (something I still consider a plus), solid and its performance remains surprisingly good for most basic tasks. It also finally received a Gingerbread update not too long ago, which provided a welcome improvement (albeit at a slight expense to battery life). Of course, there are some considerable downsides. The camera is lackluster, and the low resolution 3.2-inch screen is fast becoming a deal-breaker as more and more apps become tailored to higher-res displays (not to mention the many games that are simply incompatible). But for a \$150 phone (now available for even less) it's hard to complain, even though I can't quite give it the same recommendation I would have a year ago. — *Don Melanson* 





THE FOUNDER OF THE UBUNTU PROJECT AND CHAMPION OF OPEN SOURCE SOFTWARE TALKS ABOUT A FONDNESS FOR HIS FIRST NOKIA PHONE AND A DISTASTE FOR 'BRAINLESS' GADGETS.

MARK SHUTTLEWORTH

Q&A

What gadget do you depend on most? My laptop.

Which do you look back upon most fondly? First Nokia business phone — it was fast to make a call or send a message, and the battery lasted a week!

Which company does the most to push the industry? Google.

What is your operating system of choice? Ubuntu.

What are your favorite gadget names? Well, I like Ubuntu codenames, but I think Apple's i* scheme is brilliant.

What are your least favorite? "Ultimate Edition"

Which app do you depend on most? The browser.

What traits do you most deplore in a smartphone? Short battery life.

Which do you most admire? Focus and clarity.

What is your idea of the perfect device? Does what it does beautifully, makes me excited to pick it up.

What is your earliest gadget memory? Someone brought their Dad's watch calculator to school!

What technological advancement do you most admire? The internet.

Which do you most despise? Stovetop buttons with no feedback.

What fault are you most tolerant of in a gadget? Beauty.

Which are you most intolerant of? Brainlessness.

When has your smartphone been of the most help? Settling pub disputes via Wikipedia.

What device do you covet most? An Asus Transformer 4 with Ubuntu pre-installed ;)

If you could change one thing about your phone what would it be? It would run Ubuntu!

What does being connected mean to you? Art, friendship, inspiration and productivity.

When are you least likely to reply to an email? When doing so won't make a difference in the world.

When did you last disconnect? I very rarely do.





The Last Word - Box Brown

engadget

The real-time source and final word for news on gadgets and technology.

download engadget for iPad



1 HOUR AGO
IRL: Sony NEX-C3, Garmin Forerunner 110 and the Elgato Turbo.264 HD

3 HOURS AGO
iPhone 5 to have 21Mbps HSPA+ data? China Unicom says so



30 MINS AGO

Dell confirms XPS 14z will go on sale in the US in the 'coming weeks'

Remember that XPS 14z Dell teased at IFA? Yeah, well, it's arriving soon. As in, "the coming weeks" soon. The company just confirmed it's on the cusp of shipping here in the states, and while the outfit stopped short of giving a starting price, it's good and ready to talk specs. As we reported last month, it has the same industri...

By Dana Wollman September 29, 2011 12:35PM



54 MINS AGO

iPhone 5 cases and realistic unibody dummy show off incredible slimness

While we're only five days away from finding out the true appearance of the next-generation iPhone, our good friends over at BENM.AT went ahead and crafted their very own unibody dummy using CAD drawings, CNC tools and a block of aluminum -- seriously, that's how they roll! Granted, this work's only based on...

By Richard Lai September 29, 2011 12:13PM



1 HOUR AGO

Kobo's Vox Android tablet appears online briefly, gets Canadian release date and pricing

A day after another little-known e-reader manufacturer announced a tablet, a new Android slate from Kobo made a brief online appearance on Future Shop's site, only to be quickly taken down. According to the Canadian retailer, the FCC-approved tablet will offer up a 7-inch display with a 1024 x 600 resolution, WiF...

By Brian Heater September 29, 2011 11:53AM



Iceland gets a data center to call its own, still believes in fairies

You say Iceland, we immediately think Eyjafjallajökull -- and no, we haven't had a narcoleptic collapse upon these very keys. It's been over a year since that volcano swept the headlines and interrupted air travel, providing outsiders with a skewed

NOW PLAYING:
Engadget Podcast 246 - 07.01.2011



Engadget Podcast
09.27.2011

Engadget Podcast
09.23.2011

257

Engadget Podcast
09.20.2011

Engad
09.16.2



Home

Photos

Videos

Saved

Topics

Archives

Settings

Podcasts



Editor-in-chief, Engadget	Tim Stevens
Executive Editor, Distro	Christopher Trout
Executive Assistants, Distro	Billy Steele / Jon Turi
Managing Editor	Darren Murph
Senior Associate Editors	Don Melanson / Brian Heater / Zach Honig Richard Lai / Michael Gorman / Amar Toor Sharif Sakr
Associate Editors	Joe Pollicino / Sean Buckley / Joseph Volpe Terrence O'Brien
Senior Mobile Editor	Myriam Joire
Associate Mobile Editor	Brad Molen
Contributing Mobile Editors	Sean Cooper / Zachary Lutz
Senior HD Editor	Richard Lawler
Contributing HD Editor	Ben Drawbaugh
Reviews Editor	Dana Wollman
Contributing Editors	Kevin Wong / Mat Smith / James Trew Daniel Cooper / Lydia Leavitt / Dante Cesa Edgar Alvarez
Senior Chinese Editor	Andy Yang
Senior Columnist	Ross Rubin
Illustrators	Box Brown, Dustin Harbin
Editorial Director	Joshua Fruhlinger

App Platform / Creative

Creative Leads
Designers
Contributing Designers

AOL Mobile

Jeremy LaCroix / David Robinson
Will Lipman / Portia Monberg / Aaron Martin
Josh Klenert / Candy Mayo
Davy Reynolds / Brendan Dalton

Product Manager
Architects

Luan Tran
Scott Tury / Todd Brannam

Developers

Kyle Lu / Scott Tury / Mike Levine
Ron Anderson / Terence Worley
Chaitanya Muppa / Tejas Lagvankar
Sudheer Agrawal / Jared Sheehan

Tech Leadership
QA

Bob Ward / Larry Aasen
Harry Bowen Jr. / Moncef Belyamani
Basil Darwaza / Eileen Miller
James Baxter / Scott Basham

Sales

Mandar Shinde / Alice Hawari